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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Dec 17   The CA Lexicon available in the CAPLUS and CA files
 NEWS  3  Feb 06   Engineering Information Encompass files have new names
 NEWS  4  Feb 16   TOXLINE no longer being updated
 NEWS  5  Apr 23   Search Derwent WPINDEX by chemical structure
 NEWS  6  Apr 23   PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
 NEWS  7  May 07   DGENE Reload
 NEWS  8  Jun 20   Published patent applications (A1) are now in USPATFULL
 NEWS  9  JUL 13   New SDI alert frequency now available in Derwent's
                   DWPI and DPCI
 NEWS 10  Aug 23   In-process records and more frequent updates now in
                   MEDLINE
 NEWS 11  Aug 23   PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
 NEWS 12  Aug 23   Adis Newsletters (ADISNEWS) now available on STN
 NEWS 13  Sep 17   IMSworld Pharmaceutical Company Directory name change
                   to PHARMASEARCH
 NEWS 14  Oct 09   Korean abstracts now included in Derwent World Patents
                   Index
 NEWS 15  Oct 09   Number of Derwent World Patents Index updates increased
 NEWS 16  Oct 15   Calculated properties now in the REGISTRY/ZREGISTRY File
 NEWS 17  Oct 22   Over 1 million reactions added to CASREACT
 NEWS 18  Oct 22   DGENE GETSIM has been improved
 NEWS 19  Oct 29   AAASD no longer available

 NEWS EXPRESS  August 15 CURRENT WINDOWS VERSION IS V6.0c,
               CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP),
               AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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FILE 'HOME' ENTERED AT 16:31:28 ON 02 NOV 2001

=> file medline, uspat, dgene, hcaplus, embase

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.30	0.30

FILE 'MEDLINE' ENTERED AT 16:32:16 ON 02 NOV 2001

FILE 'USPATFULL' ENTERED AT 16:32:16 ON 02 NOV 2001
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FILE 'DGENE' ENTERED AT 16:32:16 ON 02 NOV 2001
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FILE 'EMBASE' ENTERED AT 16:32:16 ON 02 NOV 2001
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=> s fluorescent dye

L1 21604 FLUORESCENT DYE

=> s l2 and tetracysteome

L2 NOT FOUND
The L-number entered could not be found. To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l1 and tetracysteine

L2 0 L1 AND TETRACYSTEINE

=> s fluorescein arsenical helix binder

L3 3 FLUORESCEIN ARSENICAL HELIX BINDER

=> s protein tag

L4 212 PROTEIN TAG

=> s FLAsh

L5 148618 FLASH

=> s l5 and cysteine

L6 2081 L5 AND CYSTEINE

=> s l6 and l3

L7 0 L6 AND L3

=> s l6 and l4

L8 0 L6 AND L4

=> d l3 ti abs ibib tot

L3 ANSWER 1 OF 3 USPATFULL

TI Compositions and methods for assaying subcellular conditions and processes using energy transfer

AB The invention is provides compositions and methods for monitoring subcellular compartments such as organelles by energy transfer techniques that do not require specific intermolecular affinity binding events between energy transfer donor and energy transfer acceptor molecules. Provided are methods for assaying cellular membrane potential, including mitochondrial membrane potential, by energy transfer methodologies including fluorescence resonance energy transfer (FRET). Diagnostic and drug screening assays are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:142122 USPATFULL
TITLE:	Compositions and methods for assaying subcellular conditions and processes using energy transfer
INVENTOR(S):	Dykens, James A., Encinitas, CA, United States Veli.cedilla.elebi, Gonul, San Diego, CA, United States Ghosh, Soumitra S., San Diego, CA, United States
PATENT ASSIGNEE(S):	Mitokor, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280981	B1	20010828
APPLICATION INFO.:	US 2000-514569		20000223 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-338122, filed on 22 Jun 1999		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Brusca, John S.		
ASSISTANT EXAMINER:	Lundgren, Jeffrey S.		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group PLLC		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	4803		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2001 ACS

TI Method of affinity purifying proteins using modified bis-arsenical fluorescein

AB The present invention features methods for purifying polypeptides of interest using a modified **Fluorescein arsenical helix binder** (FlAsH) compd. immobilized on a solid support. An exemplary FlAsH target sequence motif is also presented. Examples of modification of the FlAsH compd. which allow immobilization to a solid support are also provided. The present invention also provides DNA constructs for producing a dual affinity tagged polypeptide and methods for purifn. thereof. Human kinesin constructs C-terminally tagged with the peptide WEAAAREACCRECCARA (specifically chelating with .beta.-alanine-modified FlAsH, prepn. given) were expressed in Escherichia coli and purified using beads contg. .beta.-alanine-modified FlAsH. Protein was eluted using 1,2-ethanedithiol.

ACCESSION NUMBER:	2001:545718 HCAPLUS
DOCUMENT NUMBER:	135:149588
TITLE:	Method of affinity purifying proteins using modified bis-arsenical fluorescein

INVENTOR(S): Vale, Ronald D.; Thorn, Kurt; Cooke, Roger; Matuska, Marija; Naber, Nariman
PATENT ASSIGNEE(S): [redacted] Regents of the University of [redacted] ifornia, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001053325	A2	20010726	WO 2001-US2214	20010122

W: AU, CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

PRIORITY APPLN. INFO.: US 2000-178054 P 20000124
US 2000-502664 A 20000211
OTHER SOURCE(S): MARPAT 135:149588

L3 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS
TI A FLASH of insight into cellular chemistry: genetically encoded labels for
protein visualization in vivo
AB A review with 24 refs. Genetically encoded fluorescent labels, such as green fluorescent protein, make it possible to visualize a protein's natural distribution and environment in living cells. A new approach to protein labeling in living cells has been devised in which a small, membrane-permeable ligand binds with high affinity and specificity to a short peptide motif that can be incorporated into the protein of interest;
the ligand becomes brightly fluorescent after binding to the peptide.
ACCESSION NUMBER: 1998:802921 HCAPLUS
DOCUMENT NUMBER: 130:150455
TITLE: A FLASH of insight into cellular chemistry: genetically encoded labels for protein visualization in vivo
AUTHOR(S): Leubke, Kevin J.
CORPORATE SOURCE: Center for Biomedical Inventions, Department of Internal Medicine, University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 75235-8573, USA
SOURCE: Chem. Biol. (1998), 5(12), R317-R322
CODEN: CBOLE2; ISSN: 1074-5521
PUBLISHER: Current Biology Publications
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 24
REFERENCE(S):
(1) Chalfie, M; Science 1994, V263, P802 HCAPLUS
(2) Cody, C; Biochemistry 1993, V32, P1212 HCAPLUS
(3) Cubitt, A; Trends Biochem Sci 1995, V20, P448 HCAPLUS
(4) Golovina, V; Science 1997, V275, P1643 HCAPLUS
(5) Griffin, B; Science 1998, V281, P269 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> e vale, r/au

E1	1		VALE WYLIE WALKER/AU
E2	37		VALE WYLIE WALKER JR/AU
E3	0	-->	VALE, R/AU
E4	19		VALEA A/AU
E5	2		VALEA D/AU
E6	1		VALEA E/AU

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E7            17      VALEA F/AU
E8            28      VALEA F A/AU
E9             4      VALEA [redacted]EL/AU
E10            3      VALEA FIDEL A/AU
E11            2      VALEA GHEORGHE/AU
E12            2      VALEA GREGORIO/AU

=> e cook, r/au

E1             1      COOK YALE B/AU
E2             1      COOK YARWORTH J/AU
E3             0 --> COOK, R/AU
E4             1      COOKAND D R/AU
E5             1      COOKE/AU
E6           446      COOKE A/AU
E7             4      COOKE A C/AU
E8             2      COOKE A D/AU
E9             1      COOKE A D A/AU
E10            7      COOKE A F/AU
E11           65      COOKE A H/AU
E12           12      COOKE A I/AU

=> s fluorescein arsenical helix binder () solid support
L9             0 FLUORESCEIN ARSENICAL HELIX BINDER (W) SOLID SUPPORT
```

CN 5: PN: WO0047220 SEQID: 49 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17

SEQ 1 AEAAAREACC RECCARA
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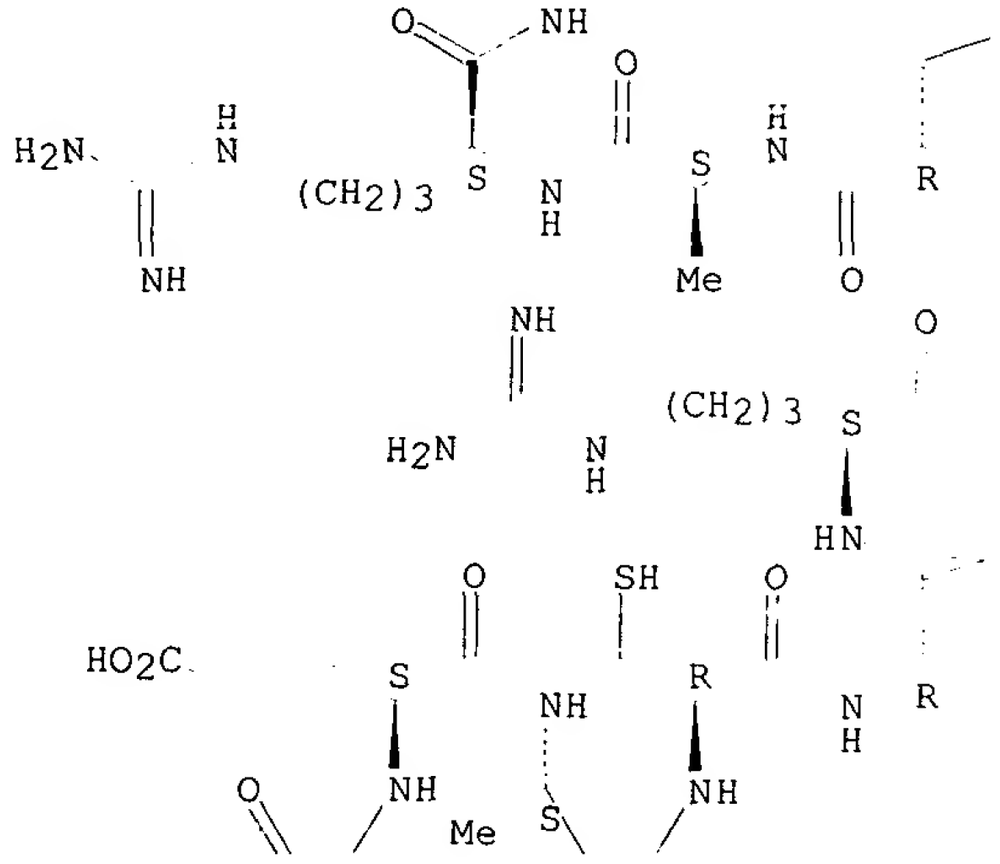
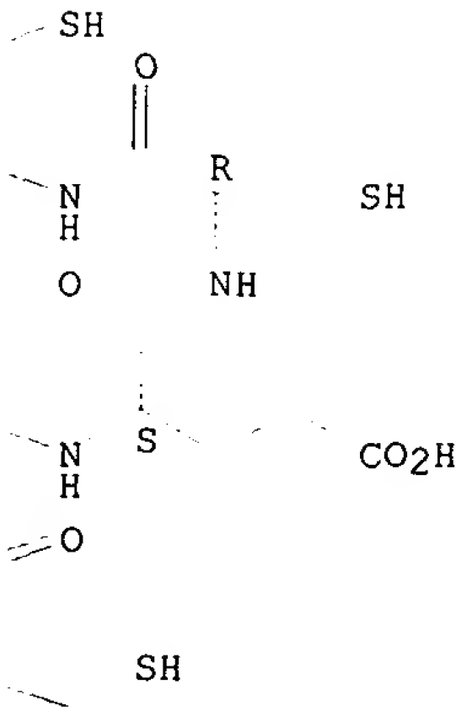
HITS AT: 9-14
MF C66 H114 N26 O24 S4
SR CA
LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.

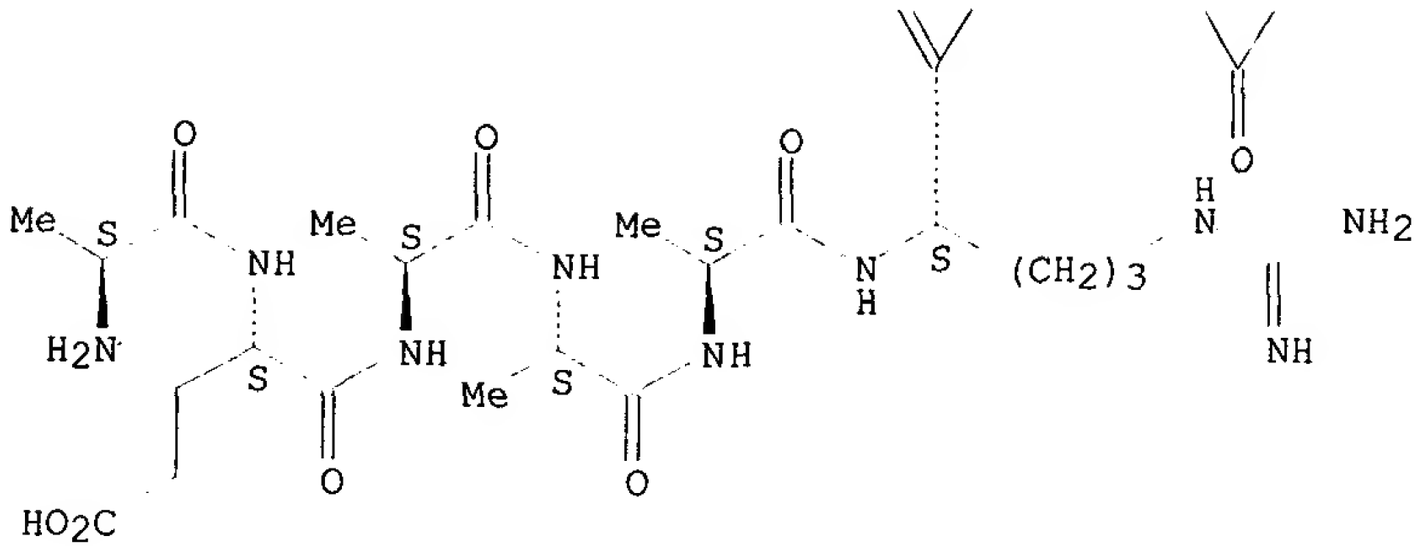
PAGE 1-A



PAGE 1-B



PAGE 2-A



2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:172215

REFERENCE 2: 130:308804

L57 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2001 ACS
RN **223673-78-7** REGISTRY
CN L-Alaninamide, N-acetyl-L-tryptophyl-L-.alpha.-glutamyl-L-alanyl-L-alanyl-L-alanyl-L-arginyl-L-.alpha.-glutamyl-L-alanyl-L-cysteinyl-L-cysteinyl-L-arginyl-L-.alpha.-glutamyl-L-cysteinyl-L-cysteinyl-L-alanyl-L-arginyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified

type	location		description
terminal mod.	Trp-1	-	N-acetyl
terminal mod.	Ala-17	-	C-terminal amide

SEQ 1 WEAAAREACC RECCARA
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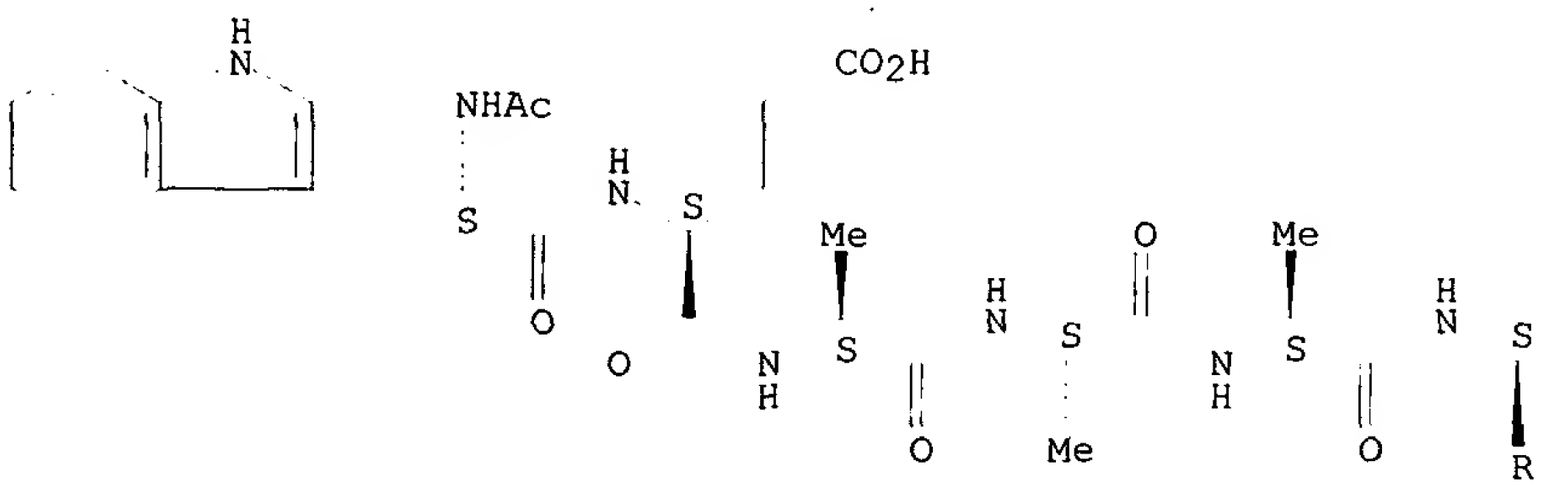
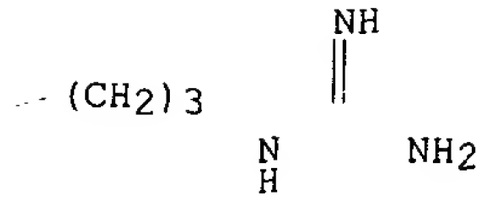
HITS AT: 9-14
MF C76 H122 N28 O24 S4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

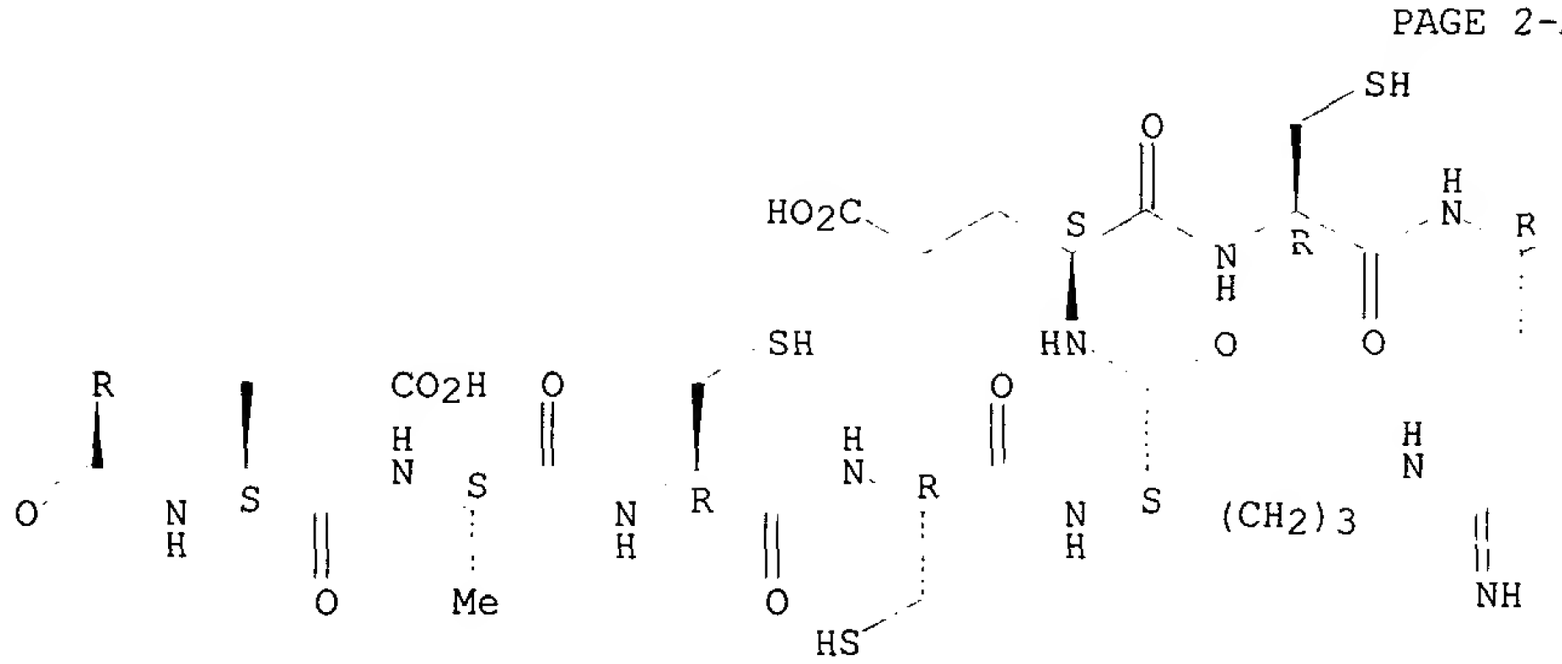
PAGE 1-A



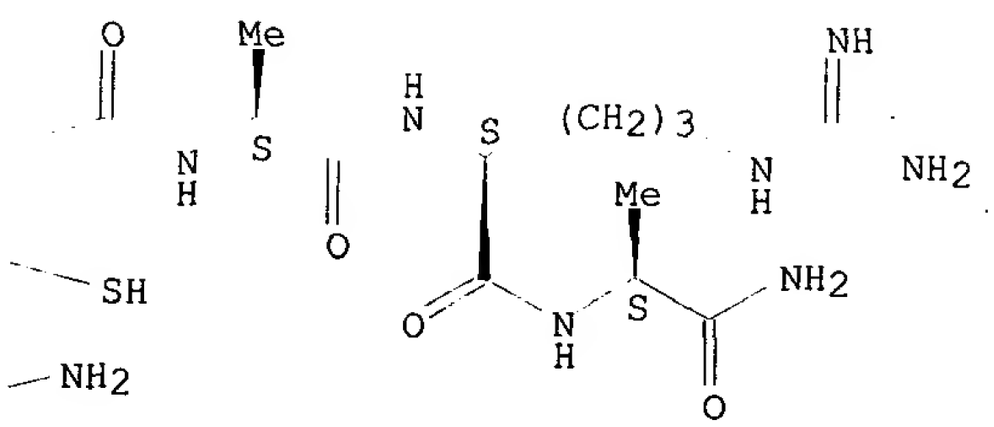
PAGE 1-B



PAGE 2-A



PAGE 2-B



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:308804

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 15:57:16 ON 13 NOV 2001

FILE COVERS 1947 - 13 Nov 2001 VOL 135 ISS 21
FILE LAST UPDATED: 12 Nov 2001 (20011112/ED)

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=> d all tot 151

L51 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:545718 HCAPLUS
DN 135:149588
TI Method of affinity purifying proteins using modified bis-**arsenical fluorescein**
IN **Vale, Ronald D.; Thorn, Kurt; Cooke, Roger; Matuska, Marija; Naber, Nariman**
PA The Regents of the University of California, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K
CC 9-3 (Biochemical Methods)
Section cross-reference(s): 28
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001053325	A2	20010726	WO 2001-US2214	20010122
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI US 2000-178054	P	20000124		
US 2000-502664	A	20000211		

OS MARPAT 135:149588
AB The present invention features methods for purifying polypeptides of interest using a modified **Fluorescein arsenical** helix binder (FlAsH) compd. immobilized on a solid support. An exemplary FlAsH target sequence motif is also presented. Examples of modification of the FlAsH compd. which allow immobilization to a solid support are also provided. The present invention also provides DNA constructs for producing a dual affinity tagged polypeptide and methods for purifn. thereof. Human kinesin constructs C-terminally tagged with the peptide WEAAAREACCRECCARA (specifically chelating with .**beta**.-**alanine**-modified FlAsH, prepn. given) were expressed in Escherichia coli and purified using beads contg. .**beta**.-**alanine**-modified FlAsH. Protein was eluted using 1,2-ethanedithiol.
ST protein purifn bis **arsenical fluorescein** helix binder; immobilization affinity purifn protein **fluorescein arsenical** compd; **beta alanine** modified bis **arsenical fluorescein**; kinesin fusion protein purifn **arsenical fluorescein**
IT Liquid chromatography
(FPLC; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Affinity chromatographic stationary phases
(HPLC; affinity purifying proteins using modified bis-**arsenical**

fluorescein)
IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); NUU (Nonbiological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(MBP (maltose-binding protein), chimeric protein contg.; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Affinity chromatographic stationary phases
Affinity chromatography
Gel permeation chromatography
Immobilization, biochemical
Molecular cloning
Plant cell
pH
(affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Peptides, biological studies
Proteins, general, biological studies
RL: BPN (Biosynthetic preparation); BPR (Biological process); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); PROC (Process)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); NUU (Nonbiological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Kinesins
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT HPLC
HPLC stationary phases
Purification
(affinity; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Ceramics
Latex
Paper
(as support; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Fluoropolymers, uses
Metals, uses
Plastics, uses
Polyamides, uses
Polyesters, uses
Polymers, uses
Polysiloxanes, uses
Rayon, uses
Semimetals
RL: DEV (Device component use); USES (Uses)
(as support; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Chromatography
(batch; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Insect (Insecta)
(cells of; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Polymers, uses
RL: DEV (Device component use); USES (Uses)
(co-, as support; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT DNA
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(constructs for producing dual affinity tagged polypeptides; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Glass, uses
RL: DEV (Device component use); USES (Uses)
(controlled pore, as support; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Thiols (organic), uses
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(dithiols, polypeptide elution with; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(dual affinity-tagged; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Amino acids, reactions
RL: RCT (Reactant)
(**fluorescein arsenical** helix binder modification by acylation with; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Acylation
(**fluorescein arsenical** helix binder modification by amino acid; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fluorescent, gene for, as selectable marker in DNA construct; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Chimeric gene
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(for affinity tag and **fluorescein arsenical** helix binder target sequence motif; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Protein motifs
(for **fluorescein arsenical** helix binder target sequence; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Gene
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for selectable marker, in DNA construct; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Antibiotic resistance
(gene for, as selectable marker in DNA construct; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Toxins
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(gene for, as selectable marker in DNA construct; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Genetic markers
(in DNA construct; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Escherichia coli
(kinesin tagged with FlAsH peptide target prodn. in and purifn. from; affinity purifying proteins using modified bis-**arsenical fluorescein**)
IT Cell
(lysates, polypeptides of; affinity purifying proteins using modified

bis-**arsenical fluorescein**)

IT Eukaryote (Eukaryotae)
Plant (Embryophyta)
Prokaryote
(polypeptides of; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT 26062-48-6DP, Polyhistidine, chimeric proteins 50812-37-8DP, Glutathione S-transferase, chimeric proteins 64134-30-1DP, (L-His)6, chimeric proteins 98849-88-8DP, FLAG peptide, chimeric proteins
RL: BPN (Biosynthetic preparation); NUU (Nonbiological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **2321-07-5D, Fluorescein**, modified **arsenical** helix binder, immobilized **268741-25-9D**, tautomers and anhydrides and salts and immobilized
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **268741-25-9P**
RL: NUU (Nonbiological use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT 3326-34-9, 4-Amino **fluorescein** **7784-34-1**, **Arsenic** trichloride 35737-10-1
RL: RCT (Reactant)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT 73857-22-4P 268741-26-0P 268741-27-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **268741-28-2P**
RL: BPN (Biosynthetic preparation); BPR (Biological process); NUU (Nonbiological use, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amino acid sequence, as FlAsH peptide target; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **352206-69-0**
RL: BPR (Biological process); NUU (Nonbiological use, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process); USES (Uses)
(amino acid sequence, **fluorescein arsenical** helix binder target sequence; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT 9002-81-7, Polyformaldehyde 9002-84-0, Teflon 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 9004-35-7, Cellulose acetate 9004-70-0, Nitrocellulose 9012-36-6, Agarose 24937-79-9, Polyvinylidene difluoride 24991-31-9, Poly(vinylbutyrate) 25038-59-9, Poly(ethylene terephthalate), uses 25087-26-7, Polymethacrylic acid 28902-82-1 34540-03-9, Polyacrylimide
RL: DEV (Device component use); USES (Uses)
(as support; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **107-95-9, .beta.-Alanine**
RL: RCT (Reactant)
(**fluorescein arsenical** helix binder modification by acylation with; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **74-61-3** 288-32-4, Imidazole, uses **3483-12-3**, Dithiothreitol
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(polypeptide elution with; affinity purifying proteins using modified bis-**arsenical fluorescein**)

IT **540-63-6**, 1,2-Ethanedithiol
RL: NUU (Nonbiological use, unclassified); RCT (Reactant); USES (Uses)

(polypeptide elution with; affinity purifying proteins using modified bis-**arsenical fluorescein**)

L51 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:228897 HCAPLUS
DN 134:261272
TI Cell membrane-impermeable **arsenoxide** compounds, their preparation, pharmaceutical compositions, and therapeutic and diagnostic use
IN Hogg, Philip John; Donoghue, Neil
PA Unisearch Limited, Australia
SO PCT Int. Appl., 122 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07F009-20
ICS C07F009-78; C07F009-74
CC 1-12 (Pharmacology)
Section cross-reference(s): 29, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001021628	A1	20010329	WO 2000-AU1143	20000920

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI AU 1999-2967 A 19990920
OS MARPAT 134:261272
AB The invention discloses compds. A(LY)p, (A = .gtoreq.1 substantially cell-membrane impermeable pendant group; L = linker and/or spacer; Y = .gtoreq.1 **arsenoxide** or **arsenoxide** equiv.; p = 1-10; sum total of C atoms in A and L together >6). Prepn. of e.g. 4-[N-(S-glutathionylacetyl)amino]**phenylarsenoxide** is described, as are e.g. the antitumor activity, tumor imaging ability, and activity inhibiting HIV infection of compds. of the invention. Pharmaceutical formulations are also described.
ST membrane impermeable **arsenoxide** compd prepn therapeutic; diagnostic membrane impermeable **arsenoxide** compd prep; antitumor tumor imaging **arsenoxide** compd; HIV infection **arsenoxide** compd
IT Fluorescent substances
(**arsenoxide** derivs.; substantially cell membrane-impermeable compd. and use thereof)
IT Amines, biological studies
Amino acids, biological studies
Oligosaccharides, biological studies
Peptides, biological studies
Proteins, general, biological studies
Radionuclides, biological studies
Transition metals, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**arsenoxide** derivs.; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(capsules; substantially cell membrane-impermeable compd. and use thereof)
IT Lung, neoplasm
(carcinoma, imaging; substantially cell membrane-impermeable compd. and use thereof)

IT Cell proliferation
(disease; substantially cell membrane-impermeable compd. and use thereof)
IT Blood vessel
(endothelium, cell; substantially cell membrane-impermeable compd. and use thereof)
IT Antitumor agents
(fibrosarcoma; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(inhalants; substantially cell membrane-impermeable compd. and use thereof)
IT Cell proliferation
Lung, neoplasm
Pancreas, neoplasm
(inhibitors; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(injections; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(lotions; substantially cell membrane-impermeable compd. and use thereof)
IT Antitumor agents
(lung; substantially cell membrane-impermeable compd. and use thereof)
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mercapto-contg., **arsenoxide** derivs.; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(ointments, creams; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(ointments; substantially cell membrane-impermeable compd. and use thereof)
IT Antitumor agents
(pancreas; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(parenterals; substantially cell membrane-impermeable compd. and use thereof)
IT Drug delivery systems
(solns., ophthalmic; substantially cell membrane-impermeable compd. and use thereof)
IT Angiogenesis inhibitors
Anti-AIDS agents
Anti-inflammatory agents
Anticoagulants
Antitumor agents
Antiviral agents
Autoimmune disease
Blood vessel, disease
CD4-positive T cell
Cardiovascular agents
Cell membrane
Drug delivery systems
Human immunodeficiency virus 1
Imaging agents
(substantially cell membrane-impermeable compd. and use thereof)
IT Thioredoxins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(substantially cell membrane-impermeable compd. and use thereof)
IT CD4 (antigen)

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(substantially cell membrane-impermeable compd. and use thereof)

IT Drug delivery systems
(topical; substantially cell membrane-impermeable compd. and use thereof)

IT 14133-76-7, Technetium-99, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(metastable, **arsenoxide** derivs.; substantially cell membrane-impermeable compd. and use thereof)

IT 1119-62-6P **1122-90-3P** **51146-91-9P** 57757-57-0P
331722-76-0P 331722-83-9P 331722-84-0P 331722-85-1P
331722-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction; substantially cell membrane-impermeable compd. and use thereof)

IT 56-84-8, L-Aspartic acid, reactions 56-86-0, L-Glutamic acid, reactions
66-84-2, D-Glucosamine hydrochloride 70-18-8, Glutathione, reactions
98-50-0, p-Arsanilic acid 107-96-0, 3-Mercaptopropanoic acid
498-40-8, L-Cysteic acid 598-21-0, Bromoacetyl bromide 6066-82-6,
N-Hydroxysuccinimide **67278-31-3** 89889-52-1 123740-08-9
148356-00-7 148356-01-8 172777-84-3, Cy5.5
RL: RCT (Reactant)
(reaction; substantially cell membrane-impermeable compd. and use thereof)

IT **331722-70-4P**
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(substantially cell membrane-impermeable compd. and use thereof)

IT **331722-77-1P** **331722-78-2P** 331722-79-3P
331722-80-6P 331722-81-7P 331722-82-8P **331722-87-3P**
331722-88-4P **331722-89-5P** **331722-90-8P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(substantially cell membrane-impermeable compd. and use thereof)

IT 56-84-8D, Aspartic acid, **arsenoxide** derivs. 56-86-0D, Glutamic acid, **arsenoxide** derivs. 56-87-1D, Lysine, **arsenoxide** derivs. 58-85-5D, Biotin, **arsenoxide** derivs. 70-18-8D, Glutathione, **arsenoxide** derivs. 74-79-3D, Arginine, **arsenoxide** derivs. 498-40-8D, Cysteic acid, **arsenoxide** derivs. **2321-07-5D**, **Fluorescein**, **arsenoxide** derivs. 3416-24-8D, Glucosamine, **arsenoxide** derivs. **7440-38-2D**, **Arsenic**, **arsenoxide** derivs., biological studies 10028-17-8D, Tritium, **arsenoxide** derivs., biological studies 10043-66-0D, Iodine-131, **arsenoxide** derivs., biological studies 13967-65-2D, Holmium-166, **arsenoxide** derivs., biological studies 14119-09-6D, Gallium-67, **arsenoxide** derivs., biological studies 14158-31-7D, Iodine-125, **arsenoxide** derivs., biological studies 14265-75-9D, Lutetium-177, **arsenoxide** derivs., biological studies 14378-26-8D, Rhenium-188, **arsenoxide** derivs., biological studies 14596-37-3D, Phosphorus-32, **arsenoxide** derivs., biological studies 14762-75-5D, Carbon-14, **arsenoxide** derivs., biological studies 14913-89-4D, **arsenoxide** derivs., biological studies 14998-63-1D, Rhenium-186, **arsenoxide** derivs., biological studies 15117-53-0D, Sulfur-35, **arsenoxide** derivs., biological studies 15715-08-9D, Iodine-123, **arsenoxide** derivs., biological studies 15749-66-3D, Phosphorus-33, **arsenoxide** derivs., biological studies 15750-15-9D, Indium-111, **arsenoxide** derivs., biological studies 15757-86-5D, Copper-67, **arsenoxide** derivs., biological studies 15766-00-4D, Samarium-153, **arsenoxide** derivs., biological studies 19246-18-5D, Cysteinylglycine, **arsenoxide** derivs. 172777-84-3D, Cy5.5, **arsenoxide**

derivs. **331722-71-5 331722-72-6 331722-73-7**
331722-74-8 331746-49-7 331815-00-0
331815-01-1 331815-02-2 331815-03-3
331815-04-4 331815-05-5 331815-06-6
331815-07-7 331815-08-8 331815-09-9
331815-10-2
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(substantially cell membrane-impermeable compd. and use thereof)

IT 37318-49-3, Protein disulfide isomerase
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(substantially cell membrane-impermeable compd. and use thereof)

IT 59-52-9, 2,3-Dimercapto-1-propanol 69-78-3, DTNB 1077-28-7, 6,8-Thioctic acid **3483-12-3**, Dithiothreitol
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(substantially cell membrane-impermeable compd. and use thereof)

IT 117525-19-6 331722-91-9
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(substantially cell membrane-impermeable compd. and use thereof)

RE.CNT 7
RE
(1) Bhargava; Mol Biochem Parasitol 1983, V9, P29 HCAPLUS
(2) Carter; Nature 1993, V361(6408), P173 HCAPLUS
(3) Cunningham; Eur J Biochem 1994, V221, P285 HCAPLUS
(4) Fairlamb; Proc Natl Acad Sci 1989, V86, P2607 HCAPLUS
(5) Fairlamb, A; Ann Rev Microbiol 1992, V46, P695 HCAPLUS
(6) Friedheim; US 3883650 1975 HCAPLUS
(7) Pisciotto; Biochimica et Biophysica acta 1980, V628, P241 HCAPLUS

L51 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:911534 HCAPLUS
DN 134:66121
TI Compositions and methods for assaying subcellular conditions and processes using energy transfer for drug screening
IN Dykens, James A.; Velicelebi, Gonul; Ghosh, Soumitra S.
PA Mitokor, USA
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N033-50
CC 1-1 (Pharmacology)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000079274	A2	20001228	WO 2000-US17380	20000622
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6280981	B1	20010828	US 2000-514569	20000223
PRAI	US 1999-140433	P	19990622		
	US 1999-338122	A	19990622		
	US 2000-176383	P	20000114		

AB The invention provides compns. and methods for monitoring subcellular compartments such as organelles by energy transfer techniques that do not require specific intermol. affinity binding events between energy transfer donor and energy transfer acceptor mols. pH. Provided are methods for assaying cellular membrane potential, including mitochondrial membrane potential, by energy transfer methodologies including fluorescence

resonance energy transfer (FRET). Diagnostic and drug screening assays are also provided.
ST fluorescence resonance energy transfer FRET drug screening cell mitochondrium
IT Transport proteins
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(ADP/ATP carrier; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Fluorescent probes
(LysoSensor and LysoTracker; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Membrane potential
(biol.; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Alzheimer's disease
Animal tissue culture
Apoptosis
Drug screening
Fluorometry
Ion channel blockers
Mitochondria
Parkinson's disease
Permeability
Plant tissue culture
pH
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Natural products, pharmaceutical
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Calcium channel
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Glutamate receptors
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Resonant energy transfer
(fluorescence; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Proteins, specific or class
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(green fluorescent, blue shifted; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Proteins, specific or class
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(green fluorescent, cyan shifted; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Proteins, specific or class
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(green fluorescent, red shifted; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)
IT Proteins, specific or class
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);

ANST (Analytical study); BIOL (Biological study); USES (Uses)
(green fluorescent, yellow shifted; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(green fluorescent; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT Polarization
(hyperpolarization, biol., of mitochondria; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT Mitochondria
(membrane; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT Membrane, biological
(mitochondrial; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT Diabetes mellitus
(non-insulin-dependent; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 199116-50-2, MitoTracker Orange CMTMRos
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(MitoTracker Orange CMTMRos; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 81-88-9, Rhodamine B 959-81-9 989-38-8, Rhodamine 6G 1239-45-8, Ethidium bromide 2156-29-8 2315-97-1, Lucigenin 3520-43-2, JC-1 3785-01-1, DASPEI 6837-70-3, Rosamine 14806-50-9 41085-99-8 47165-04-8, DAPI 53213-81-3 53213-82-4 53213-83-5 59865-13-3, Cyclosporin A 62669-70-9, Rhodamine 123 75168-11-5, 10-Nonyl acridine orange 84109-11-5 86701-10-2 94885-04-8 115532-49-5, Tetramethylrhodamine, methyl ester 139626-15-6, Tetramethylrhodamine ethylester 161057-69-8, FUN-1 201860-17-5, MitoTracker Green FM **212118-77-9**, Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4',5'-bis(1,3,2-dithiarsolan-2-yl)-3',6'-dihydroxy- 273720-46-0, MitoFluor green 314266-84-7, SNAFL calcein 314266-85-8 314730-55-7, SYTO 18
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 56-86-0, L-Glutamic acid, biological studies 370-86-5, Carbonyl cyanide p-(trifluoromethoxy)phenyl hydrazone 487-79-6, Kainic acid 555-60-2, Carbonyl cyanide m-chlorophenyl hydrazone 1404-19-9, Oligomycin 3106-85-2, NAAG 6384-92-5, NMDA 11076-19-0, Bongkrekic acid 17754-44-8, Atractyloside 28380-24-7, Nigericin 33286-30-5, Carboxyatractyloside 48134-75-4, 1-Methyl-4-phenylpyridinium 52665-69-7, A23187 60132-21-0, Isobongkrekic acid 67526-95-8, Thapsigargin 77521-29-0, 4-Isoxazolepropanoic acid, .alpha.-amino-2,3-dihydro-5-methyl-3-oxo- 154461-69-5
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 7440-70-2, Calcium, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 25125-46-6
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ruthenium red; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

IT 83796-96-7, Tetrabromo-rhodamine 123
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(tetrabromorhodamine 123; compns. and methods for assaying subcellular conditions and processes using energy transfer for drug screening)

L51 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:861509 HCAPLUS
DN 134:27295
TI Methods for producing 5'-nucleic acid-protein conjugates
IN Lohse, Peter; Wright, Martin C.; McPherson, Michael
PA Phylos, Inc., USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-16
ICS A61K038-03; C07K014-00
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 33, 34
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000072869	A1	20001207	WO 2000-US15077	20000601

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-137032 P 19990601
AB Disclosed herein is a method for generating a 5'-nucleic acid-protein conjugate, the method involving: (a) providing a nucleic acid which carries a reactive group at its 5'end; (b) providing a non-derivatized protein; and (c) contacting the nucleic acid and the protein under conditions which allow the reactive group to react with the N-terminus of the protein, thereby forming a 5'-nucleic acid-protein conjugate. In one approach, fusions are formed by reaction between an unprotected protein carrying an N-terminal cysteine and a nucleic acid carrying a 1,2-aminothiol reactive group. In a second approach, fusion formation occurs as the result of a biarsenical-tetracysteine interaction. Also disclosed herein are 5'-nucleic acid-protein conjugates and methods for their use in (1) the selection of a desired nucleic acid or a desired protein by sepg. the binding partner-candidate conjugate complex from unbound members of a population, and (2) detecting an interaction between a protein and a compd.
ST nucleic acid conjugate protein
IT Thiols (organic), reactions
RL: RCT (Reactant)
(amino, nucleic acids contg., reaction with N-terminal cysteinyl proteins; methods for producing 5'-nucleic acid-protein conjugates)
IT DNA
Nucleic acids
Proteins, specific or class
RNA
mRNA
RL: ANT (Analyte); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates; methods for producing 5'-nucleic acid-protein conjugates)
IT Nucleoproteins
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(methods for producing 5'-nucleic acid-protein conjugates)
IT Amines, reactions
RL: RCT (Reactant)
(thiol, nucleic acids contg., reaction with N-terminal cysteinyl proteins; methods for producing 5'-nucleic acid-protein conjugates)
IT 56377-57-2
RL: RCT (Reactant)
(methods for producing 5'-nucleic acid-protein conjugates)
IT 311797-38-3P **311797-39-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(methods for producing 5'-nucleic acid-protein conjugates)
IT 52-90-4, L-Cysteine, reactions
RL: RCT (Reactant)
(reaction with nucleic acid carrying a 1,2-aminothiol reactive group; methods for producing 5'-nucleic acid-protein conjugates)
IT 312323-65-2 312323-66-3 312323-67-4 312343-85-4
RL: PRP (Properties)
(unclaimed sequence; methods for producing 5'-nucleic acid-protein conjugates)
RE.CNT 1
RE
(1) Lebleu; EP 0263740 A1 1988 HCAPLUS

L51 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:850091 HCAPLUS
DN 134:175077
TI Fluorescent labeling of recombinant proteins in living cells with FlAsH
AU Griffin, B. Albert; Adams, Stephen R.; Jones, Jay; Tsien, Roger Y.
CS Aurora Biosciences Corporation, San Diego, CA, 92121, USA
SO Methods Enzymol. (2000), 327(Applications of Chimeric Genes and Hybrid Proteins, Pt. B), 565-578
CODEN: MENZAU; ISSN: 0076-6879
PB Academic Press
DT Journal
LA English
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 6
AB Chem. labeling of specific sites in proteins is usually achieved by reaction of single cysteine residues with appropriate thiol-reactive derivs. One approach for site-specific labeling of proteins in living cells is to utilize the well-known affinity of arsenoxides for a pair of closely spaced cysteines. To prevent labeling of such endogenous cellular sites, a fluorescein contg. two arsenoxides (FlAsH) was designed that has a much higher affinity for four appropriately spaced cysteines (CCXXCC, where X is any amino acid other than cysteine) in an .alpha.-helical conformation. Such motifs are sufficiently uncommon in naturally occurring proteins to permit specific modification of the target protein incorporating the introduced FlAsH site in living cells. By labeling in the presence of the arsenoxide antidote 1,2-ethanediol (EDT), nonspecific labeling and toxicity can be minimized because EDT forms more stable complexes with arsenic than do pairs of cysteines. Moreover, FlAsH complexed with two EDT mols., is membrane permeable and nonfluorescent yet becomes brightly fluorescent on binding the CCXXCC site, thereby decreasing background signal from unbound dye during labeling. The tetracysteine site can be attached as an N- or C-terminal tag or incorporated into a known .alpha.-helical structure. Addn. of a high concn. of EDT reverses the binding of FlAsH to the tetracysteines, permitting reversible labeling. Chem. modification of the fluorescein moiety allows incorporation of different photochem. properties or use as a handle to target other small mols. to proteins modified with the FlAsH site. FlAsH may also be used to label purified proteins in vitro as an alternative to fluorescein iodoacetamide or maleimide reagents, with the advantage that the tetracysteine-binding site can be labeled without affecting single cysteines in the mol. (c) 2000 Academic Press.
ST FlAsH fluorescent label protein fluorescence
IT Cell

Fluorescence
Fluorescent indicators
(fluorescent labeling of recombinant proteins in living cells with FlAsH)

IT Proteins, general, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study)
(fluorescent labeling of recombinant proteins in living cells with FlAsH)

IT **212118-77-9**, FlAsH-EDT2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(FlAsH-EDT2; fluorescent labeling of recombinant proteins in living cells with FlAsH)

IT 107-21-1, 1,2-Ethanediol, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(fluorescent labeling of recombinant proteins in living cells with FlAsH)

IT 52-90-4, L-Cysteine, biological studies
RL: BOC (Biological occurrence); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence)
(fluorescent labeling of recombinant proteins in living cells with FlAsH)

RE.CNT 6
RE
(1) Bachmair, A; Science 1986, V234, P179 HCAPLUS
(2) Baker, R; J Biol Chem 1992, V267, P23364 HCAPLUS
(3) Gilchrist, C; J Biol Chem 1997, V272, P32280 HCAPLUS
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L51 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:169797 HCAPLUS
DN 132:344976
TI A novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**
AU **Thorn, Kurt S.; Naber, Nariman; Matuska, Marija; Vale, Ronald D.; Cooke, Roger**
CS Department of Cellular and Molecular Pharmacology, University of California, San Francisco, CA, 94143, USA
SO Protein Sci. (2000), 9(2), 213-217
CODEN: PRCIEI; ISSN: 0961-8368
PB Cambridge University Press
DT Journal
LA English
CC 9-3 (Biochemical Methods)
Section cross-reference(s): 6
AB Genetically-encoded affinity tags constitute an important strategy for purifying proteins. Here, we have designed a novel affinity matrix based on the bis-**arsenical fluorescein** dye FlAsH, which specifically recognizes short .alpha.-helical peptides contg. the sequence CCXXCC. We find that kinesin tagged with this cysteine-contg. helix binds specifically to FlAsH resin and can be eluted in a fully active form. This affinity tag has several advantages over polyhistidine, the only small affinity tag in common use. The protein obtained with this single chromatog. step from crude Escherichia coli lysates is purer than that obtained with nickel affinity chromatog. of 6xHis tagged kinesin. Moreover, unlike nickel affinity chromatog., which requires high concns. of imidazole or pH changes for elution, protein bound to the FlAsH column can be completely eluted by dithiothreitol. Because of these mild elution conditions, FlAsH affinity chromatog. is ideal for recovering fully active protein and for the purifn. of intact protein complexes.
ST protein kinesin affinity chromatog **arsenical fluorescein**
IT Affinity
Affinity chromatographic stationary phases
Affinity chromatography

(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

IT Kinesins
Proteins, general, biological studies
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

IT **268741-25-9P**
RL: ARU (Analytical role, unclassified); BPR (Biological process); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

IT **268741-28-2**
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

IT 3326-34-9, 4-Amino **fluorescein** 35737-10-1
RL: RCT (Reactant)
(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

IT 73857-22-4P 268741-26-0P 268741-27-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**)

RE.CNT 10
RE
(1) Case, R; Cell 1997, V90, P959 HCAPLUS
(2) Griffin, B; Science 1998, V281, P269 HCAPLUS
(3) Hannig, G; Trends Biotechnol 1998, V16, P54 HCAPLUS
(4) Karush, F; Anal Biochem 1964, V9, P100 HCAPLUS
(5) LaVallie, E; Curr Op Biotechnol 1995, V6, P501 HCAPLUS
(6) Makrides, S; Microbiol Rev 1996, V60, P512 HCAPLUS
(7) Nilsson, J; Prot Express Purif 1997, V11, P1 HCAPLUS
(8) Shipchandler, M; Anal Biochem 1986, V154, P476 MEDLINE
(9) Uhlen, M; Methods Enzymol 1990, V185, P129 HCAPLUS
(10) Woehlke, G; Cell 1997, V90, P207 HCAPLUS

L51 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:286159 HCAPLUS
DN 130:308804
TI Target protein sequences for binding of synthetic **biarsenical** molecules
IN Tsien, Roger Y.; Griffin, Albert B.
PA The Regents of the University of California, USA
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N033-566
ICS C07F009-80; C12N015-09; C12N015-64
CC 9-15 (Biochemical Methods)
Section cross-reference(s): 6
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9921013	A1	19990429	WO 1998-US22363	19981021

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US	5932474	A	19990803	US 1997-955206	19971021
US	6008378	A	19991228	US 1997-955859	19971021
US	6054271	A	20000425	US 1997-955050	19971021
AU	9911139	A1	19990510	AU 1999-11139	19981021
EP	1032837	A1	20000906	EP 1998-953881	19981021

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI	US 1997-955050	A2	19971021
	US 1997-955206	A2	19971021
	US 1997-955859	A2	19971021
	WO 1998-US22363	W	19981021

OS MARPAT 130:308804

AB The present invention features **biarsenical** mols. and target sequences that specifically react with the **biarsenical** mols. A bonding partner comprises a carrier polypeptide and a target sequence, wherein the target sequence is heterologous to the carrier polypeptide and the target sequence contains one or more cysteines capable of specifically reacting with a **biarsenical** mol. Bonding partners that include target sequences, vectors that include nucleic acid sequences that encode the target sequences and host cells that include the target sequences are also featured in the invention. One example of a **biarsenical** compd. is an **arsenical** deriv. of **fluorescein**.

ST protein labeling crosslinking **biarsenical** mol

IT Crosslinking agents
(**arsenic** derivs.; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Proteins (specific proteins and subclasses)
RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(cyan fluorescent protein; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Peptides, analysis
Proteins (specific proteins and subclasses)
RL: ARU (Analytical role, unclassified); BPR (Biological process); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(labeled; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Antibodies
Enzymes, biological studies
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(labeled; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Green fluorescent protein
RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(mutant; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Genes
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(recombinant; target protein sequences for binding of synthetic **biarsenical** mols.)

IT Bacteria (Eubacteria)
Cell (biological)
Conformation (protein)
Crosslinking
Fluorescence
Fluorescent substances
Genetic vectors
HeLa cell
Insect (Insecta)

Labels
Mammal (Mammalia)
Mammalian cells
Membranes (biological)
Molecular association
Plant (Embryophyta)
Plant cells
Protein sequences
Yeast
.alpha.-Helix (protein conformation)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT Calmodulins
Peptides, analysis
Proteins (general), analysis
RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT DNA
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT **223673-78-7**
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(SEQ ID 1; target protein sequences for binding of synthetic **biarsenical** mols.)

IT **223673-79-8**
RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(SEQ ID 4; target protein sequences for binding of synthetic **biarsenical** mols.)

IT **7440-38-2D, Arsenic**, derivs. **212118-77-9D**, tautomers, anhydrides and salts
RL: ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT **212118-77-9P**
RL: ARG (Analytical reagent use); BPR (Biological process); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT 52-90-4, L-Cysteine, biological studies
RL: BOC (Biological occurrence); BPR (Biological process); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT **223673-80-1 223673-81-2 223673-82-3**
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); USES (Uses)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT 76-54-0, 2',7'-Dichlorofluorescein 89-05-4, 1,2,4,5-Benzenetetracarboxylic acid 108-46-3, 1,3-Benzenediol, reactions **540-63-6**, 1,2-Ethanedithiol 1600-27-7, Mercuric acetate **7784-34-1, Arsenic** trichloride 32382-27-7, **Fluorescein** mercuric acetate 223673-84-5
RL: RCT (Reactant)
(target protein sequences for binding of synthetic **biarsenical** mols.)

IT 54210-30-9P 223673-86-7P **223673-87-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(target protein sequences for binding of synthetic **biarsenical** mols.)
IT **223673-83-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(target protein sequences for binding of synthetic **biarsenical** mols.)
RE.CNT 2
RE
(1) Kalef, E; Analytical Biochemistry 1993, V212, P325 HCAPLUS
(2) Shi, W; The Journal Of Biological Chemistry 1996, V271(16), P9291 HCAPLUS

L51 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:802921 HCAPLUS
DN 130:150455
TI A FLASH of insight into cellular chemistry: genetically encoded labels for protein visualization in vivo
AU Leubke, Kevin J.
CS Center for Biomedical Inventions, Department of Internal Medicine, University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 75235-8573, USA
SO Chem. Biol. (1998), 5(12), R317-R322
CODEN: CBOLE2; ISSN: 1074-5521
PB Current Biology Publications
DT Journal; General Review
LA English
CC 9-0 (Biochemical Methods)
AB A review with 24 refs. Genetically encoded fluorescent labels, such as green fluorescent protein, make it possible to visualize a protein's natural distribution and environment in living cells. A new approach to protein labeling in living cells has been devised in which a small, membrane-permeable ligand binds with high affinity and specificity to a short peptide motif that can be incorporated into the protein of interest; the ligand becomes brightly fluorescent after binding to the peptide.
ST FLASH cell chem review; genetically encoded label protein review; fluorescein arsenical helix binder review
IT Fluorometry
(a FLASH of insight into cellular chem.: genetically encoded labels for protein visualization in vivo)
IT Proteins (general), analysis
RL: ANT (Analyte); ANST (Analytical study)
(a FLASH of insight into cellular chem.: genetically encoded labels for protein visualization in vivo)
IT Green fluorescent protein
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(a FLASH of insight into cellular chem.: genetically encoded labels for protein visualization in vivo)
IT Cell (biological)
(living; a FLASH of insight into cellular chem.: genetically encoded labels for protein visualization in vivo)
IT **212118-77-9**, Fluorescein arsenical helix binder
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(FLASH; a FLASH of insight into cellular chem.: genetically encoded labels for protein visualization in vivo)
RE.CNT 24
RE
(1) Chalfie, M; Science 1994, V263, P802 HCAPLUS
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(7) Heim, R; Nature 1995, V373, P663 MEDLINE
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(13) Mitra, D; Gene 1996, V173, P13
(14) Miyawaki, A; Nature 1997, V388, P882 HCAPLUS
(15) Ormo, M; Science 1996, V273, P1392 HCAPLUS
(16) Partikian, A; J Cell Biol 1998, V140, P821 HCAPLUS
(17) Prasher, D; Gene 1992, V111, P229 HCAPLUS
(18) Reid, B; Biochemistry 1997, V36, P6786 HCAPLUS
(19) Rizzuto, R; Curr Biol 1995, V5, P635 HCAPLUS
(20) Rizzuto, R; Curr Biol 1996, V6, P183 HCAPLUS
(21) Romoser, V; J Biol Chem 1997, V272, P13270 HCAPLUS
(22) Tse, F; Proc Natl Acad Sci USA 1994, V91, P9750 HCAPLUS
(23) Tsien, R; Ann Rev Neurosci 1989, V12, P227 HCAPLUS
(24) Wang, S; Nature 1994, V369, P400 HCAPLUS

L51 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:456311 HCAPLUS
DN 129:200138
TI Specific covalent labeling of recombinant protein molecules inside live cells
AU Griffin, B. Albert; Adams, Stephen R.; Tsein, Roger Y.
CS Dep. Chem. and Biochem., Univ. California San diego, La Jolla, CA, 92093-0647, USA
SO Science (Washington, D. C.) (1998), 281(5374), 269-272
CODEN: SCIEAS; ISSN: 0036-8075
PB American Association for the Advancement of Science
DT Journal
LA English
CC 9-16 (Biochemical Methods)
AB Recombinant proteins contg. four cysteines at the i, i + 1, i + 4, and i + 5 positions of a .alpha. helix were fluorescently labeled in living cells by extracellular administration of 4',5'-bis(1,3,2-dithioarsolan-2-yl)fluorescein. This designed small ligand is membrane-permeant and nonfluorescent until it binds with high affinity and specificity to the tetracysteine domain. Such in situ labeling adds much less mass than does green fluorescent protein and offers greater versatility in attachment sites as well as potential spectroscopic and chem. properties. This system provides a recipe for slightly modifying a target protein so that it can be singled out from the many other proteins inside live cells and fluorescently stained by small nonfluorescent dye mols. added from outside the cells.
ST covalent labeling recombinant protein live cell
IT Cell (biological)
(live; specific covalent labeling of recombinant protein mols. inside live cells)
IT Proteins (general), reactions
RL: RCT (Reactant)
(recombinant; specific covalent labeling of recombinant protein mols. inside live cells)
IT .alpha.-Helix (protein conformation)
(specific covalent labeling of recombinant protein mols. inside live cells)
IT **212118-77-9**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(specific covalent labeling of recombinant protein mols. inside live cells)
IT 52-90-4, Cysteine, reactions
RL: RCT (Reactant)
(specific covalent labeling of recombinant protein mols. inside live cells)

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FILE 'BIOSIS' ENTERED AT 16:04:07 ON 13 NOV 2001

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 7 November 2001 (20011107/ED)

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L79 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:201792 BIOSIS
DN PREV200000201792
TI A novel method of affinity-purifying proteins using a bis-**arsenical fluorescein**.
AU **Thorn, Kurt S.; Naber, Nariman; Matuska, Marija; Vale, Ronald D.; Cooke, Roger (1)**
CS (1) Department of Biochemistry, University of California, San Francisco, 513 Parnassus Avenue, San Francisco, CA, 94143 USA
SO Protein Science, (Feb., 2000) Vol. 9, No. 2, pp. 213-217. ISSN: 0961-8368.
DT Article
LA English
SL English
AB Genetically-encoded affinity tags constitute an important strategy for purifying proteins. Here, we have designed a novel affinity matrix based on the bis-**arsenical fluorescein** dye FlAsH, which specifically recognizes short alpha-helical peptides containing the sequence CCXXCC (Griffin BA, Adams SR, Tsien RY, 1998, Science 281:269-272). We find that kinesin tagged with this cysteine-containing helix binds specifically to FlAsH resin and can be eluted in a fully active form. This affinity tag has several advantages over polyhistidine, the only small affinity tag in common use. The protein obtained with this single chromatographic step from crude Escherichia coli lysates is purer than that obtained with nickel affinity chromatography of 6xHis tagged kinesin. Moreover, unlike nickel affinity chromatography, which requires high concentrations of imidazole or pH changes for elution, protein bound to the FlAsH column can be completely eluted by dithiothreitol. Because of these mild elution conditions, FlAsH affinity chromatography is ideal for recovering fully active protein and for the purification of intact protein complexes.
CC Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biochemical Studies - General *10060
Biophysics - General Biophysical Techniques *10504
Physiology and Biochemistry of Bacteria *31000
IT Major Concepts
Biochemistry and Molecular Biophysics; Methods and Techniques
IT Chemicals & Biochemicals
Escherichia coli lysates: assay, purification; FIAsH: bis-**arsenical fluorescein** dye, reagent, resin; proteins: assay, purification
IT Methods & Equipment
FIAsH affinity chromatography: liquid chromatography, purification method; MALDI-MS [matrix-assisted laser/desorption ionization-mass spectrometry]: analytical method, mass spectrometry: CB; densitometry: analytical method, photometry: CB; nickel affinity chromatography: liquid chromatography, purification method

L79 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:43454 BIOSIS
DN PREV199900043454
TI A **FLASH** of insight into cellular chemistry: Genetically encoded labels for **protein** visualization in vivo.
AU Luebke, Kevin J. (1)
CS (1) Cent. Biomedical Inventions, Dep. Internal Med., Univ. Texas

Southwestern Med. Cent. Dallas, 5323 Harry Hines Blvd., Dallas, TX 75235-8573 USA
SO Chemistry & Biology (London), (Dec., 1998) Vol. 5, No. 12, pp. R317-R322. ISSN: 1074-5521.
DT Article
LA English
AB Genetically encoded fluorescent labels, such as green fluorescent **protein**, make it possible to visualize a **protein**'s natural distribution and environment in living cells. A new approach to **protein** labeling in living cells has been devised in which a small, membrane permeable ligand binds with high affinity and specificity to a short **peptide** motif that can be incorporated into the **protein** of interest; the ligand becomes brightly fluorescent after binding to the **peptide**.
CC Cytology and Cytochemistry - General *02502
Methods, Materials and Apparatus, General - Laboratory Methods *01004
Genetics and Cytogenetics - General *03502
Radiation - General *06502
Comparative Biochemistry, General *10010
Biochemical Methods - General *10050
Biochemical Studies - General *10060
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Replication, Transcription, Translation *10300
Biophysics - Molecular Properties and Macromolecules *10506
Biophysics - Membrane Phenomena *10508
Metabolism - Proteins, Peptides and Amino Acids *13012
In Vitro Studies, Cellular and Subcellular *32600
BC Bacteria - General Unspecified 05000
Animalia - Unspecified 33000
IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Methods and Techniques
IT Parts, Structures, & Systems of Organisms
cell membranes
IT Chemicals & Biochemicals
fluorescein arsenical helix binder: applications; fluorescent **proteins**: analysis; genetically-encoded fluorescent labels: applications; green fluorescent **protein**: applications; ligands; **peptides**; **proteins**: analysis, characterization, visualization
IT Methods & Equipment
fluorescence energy transfer: Analysis/Characterization Techniques: CB, analytical method; **protein** labeling: Detection/Labeling Techniques, labeling method
IT Miscellaneous Descriptors
cellular biochemistry; gene expression
ORGN Super Taxa
Animalia; Bacteria: Microorganisms
ORGN Organism Name
animals (Animalia); bacteria (Bacteria)
ORGN Organism Superterms
Animals; Bacteria; Eubacteria; Microorganisms
RN **2321-07-5 (FLUORESCEIN)**

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(FILE 'HOME' ENTERED AT 15:30:12 ON 13 NOV 2001)
SET COST OFF

FILE 'REGISTRY' ENTERED AT 15:30:28 ON 13 NOV 2001
E FLUORESCEIN/CN
L1 1 S E3
SEL RID
L2 10236 S E1

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L3            10 S L2 AND AS/ELS
                 E .BETA.-ALANINE/CN
L4             1 S E3
L5           807 S L2 AND SQL/FA
L6           800 S L5 AND PROTEIN/FS
L7             7 S L5 NOT L6
L8             0 S L2 AND 107-95-9/CRN
                 E 1,2-ETHANEDITHIOL/CN
L9             1 S E3
                 E DITHIOTHERITOL/CN
L10            1 S E4
                 E C4H10O2S2/MF
L11            5 S E3 AND 2 3 BUTANEDIOL
                 E DIMERCAPTOPROPANESULFONATE/CN
                 E DIMERCAPTO PROPANESULFONATE/CN
                 E PROPANESULFONATE/CN

     FILE 'HCAPLUS' ENTERED AT 15:36:03 ON 13 NOV 2001
                 E VALE R/AU
L12          121 S E3,E4,E7-E11
                 E THRON K/AU
                 E THORN K/AU
L13           29 S E3-E5,E11,E12
                 E COOKE R/AU
L14          306 S E3-E20
                 E COOKE ROGER/AU
L15          116 S E3-E6
                 E MATUSKA M/AU
L16            4 S E3,E4
                 E NABER N/AU
L17           21 S E3-E6
L18          570 S L12-L17
L19         3815 S L1
L20        17627 S FLUORESCEIN
L21            4 S L18 AND L19,L20
L22            2 S L21 AND ?ARSEN?
                 SEL RN

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L23           34 S E1-E34
L24            6 S L2 AND L23
L25            2 S L23 AND AS/ELS
L26            7 S L24,L25
L27           27 S L23 NOT L26
L28            3 S L27 AND (6/SQL OR 17/SQL)
L29            2 S L28 NOT NCNC2/ES
L30            6 S L9-L11
L31            3 S L27 AND (C4H10O2S2 OR C3H8O3S3 OR C2H6S2)
L32            7 S L30,L31
L33            4 S L3 AND 2/AS

     FILE 'HCAPLUS' ENTERED AT 15:45:28 ON 13 NOV 2001
L34            8 S L33
L35            2 S L34 AND L18
L36            2 S L22,L35
L37            8 S L34-L36
L38            1 S L37 AND (L4 OR  BETA ALANINE)
L39            2 S L37 AND L32
L40            2 S L37 AND L29

     FILE 'HCAPLUS' ENTERED AT 15:47:56 ON 13 NOV 2001
                 S CC..CC/SQSP

     FILE 'REGISTRY' ENTERED AT 15:48:03 ON 13 NOV 2001
L41          837 S CC..CC/SQSP
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     FILE 'HCAPLUS' ENTERED AT 15:48:10 ON 13 NOV 2001
L42           500 S L41
L43             3 S L42 AND L37
L44             8 S L37-L40,L43
L45            57 S L19,L20 AND ?ARSEN?

     FILE 'REGISTRY' ENTERED AT 15:49:28 ON 13 NOV 2001
                 E AS/ELS
L46         65636 S E3 NOT L3

     FILE 'HCAPLUS' ENTERED AT 15:49:52 ON 13 NOV 2001
L47             53 S L46 AND L19,L20
L48             76 S L45,L47
L49              3 S L48 AND L42
L50              3 S L48 AND L32
L51              9 S L44,L49,L50
                   SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 15:52:04 ON 13 NOV 2001
L52             48 S E1-E48
L53              5 S L52 AND L1,L2
L54              1 S L52 AND L4
L55              3 S L52 AND L32
L56             39 S L52 NOT L53-L55
L57              4 S L56 AND L41

     FILE 'REGISTRY' ENTERED AT 15:56:19 ON 13 NOV 2001

     FILE 'HCAPLUS' ENTERED AT 15:57:16 ON 13 NOV 2001

     FILE 'BIOSIS' ENTERED AT 15:57:52 ON 13 NOV 2001
                 E VALE R/AU
L58            436 S E3,E4,E11-E14
                 E  THORN K/AU
L59             40 S E3-E5,E9,E10
                 E COOKE R/AU
L60            923 S E3-E24,E43,E44
                 E MATUSKA M/AU
L61             11 S E3-E5
                 E NABER N/AU
L62             45 S E3-E9
L63           1399 S L58-L62
L64              4 S L63 AND (L1 OR L20)
L65              0 S L33
L66              2 S L63 AND ?ARSEN?
L67          20077 S FLUORESCEIN/BI
L68           5771 S L1
L69              4 S L63 AND L67,L68
L70              1 S L69 AND ?ARSEN?
L71              2 S L66,L70
L72              1 S L71 NOT ASSEMBLY LINE
L73             20 S L67,L68 AND ?ARSEN?
L74              8 S L73 AND (10054 OR 10064)/CC
L75              8 S L73 AND (?PROTEIN? OR ?PEPTIDE? OR AMINO ACID OR AMINOACID)
L76             10 S L74,L75
L77              9 S L76 NOT L72
L78              1 S L77 AND FLASH
L79              2 S L72,L78

     FILE 'BIOSIS' ENTERED AT 16:04:07 ON 13 NOV 2001
L80              4 S L73 AND ?HELI?
L81              2 S L80  NOT L79

=> fil wpix
FILE 'WPIX' ENTERED AT 16:09:35 ON 13 NOV 2001
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FILE LAST UPDATED: 08 NOV 2001 <20011108/UP>
MOST RECENT DERWENT UPDATE 200165 <200165/DW>
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=> d all abeq tech tot

L94 ANSWER 1 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-071424 [08] WPIX
DNN N2001-054040 DNC C2001-020049
TI Assaying mitochondrial membrane potential with energy transfer donor and acceptor molecules exogenous to the mitochondria, useful for identifying membrane potential modulating agents which are useful for treating diabetes and stroke.
DC B04 D16 S03
IN DYKENS, J A; GHOSH, S S; VELICELEBI, G
PA (MITO-N) MITOKOR
CYC 94
PI WO 2000079274 A2 20001228 (200108)* EN 189p G01N033-50
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000057636 A 20010109 (200122) G01N033-50
US 6280981 B1 20010828 (200151) C12P013-14
ADT WO 2000079274 A2 WO 2000-US17380 20000622; AU 2000057636 A AU 2000-57636 20000622; US 6280981 B1 Div ex US 1999-338122 19990622, US 2000-514569 20000223
FDT AU 2000057636 A Based on WO 200079274
PRAI US 2000-176383 20000114; US 1999-140433 19990622; US 1999-338122 19990622; US 2000-514569 20000223
IC ICM C12P013-14; G01N033-50
AB WO 200079274 A UPAB: 20010207
NOVELTY - A new method (M1) for assaying mitochondrial membrane potential comprises contacting a mitochondrial sample with energy transfer donor and energy transfer acceptor molecules exogenous to the mitochondria, exciting the donor molecule and detecting a signal generated by energy transfer between the donor and acceptor molecules.

DETAILED DESCRIPTION - A new method (M1) for assaying mitochondrial membrane potential comprises contacting a mitochondrial sample with energy transfer donor and energy transfer acceptor molecules exogenous to the mitochondria, exciting the donor molecule and detecting a signal generated by energy transfer between the donor and acceptor molecules.

In detail, M1 comprises:

(a) contacting a sample comprising one or more mitochondria, simultaneously or sequentially and in either order, with each of a first and a second energy transfer molecule that is not endogenous to the mitochondria, where:

(i) the first and second energy transfer molecules each localize independently of one another to the same submitochondrial site or to acceptably adjacent submitochondrial sites, the sites being selected from the mitochondrial outer membrane, mitochondrial inner membrane,

mitochondrial intermembrane space or mitochondrial matrix; and

(ii) the first energy transfer molecule is an energy donor molecule and the second energy transfer molecule is an energy acceptor molecule;

(b) exciting the energy donor molecule to produce an excited energy donor molecule; and

(c) detecting a signal generated by energy transfer from the first energy transfer molecule to the second energy transfer molecule, where the concentration of at least one of the energy transfer molecules in the mitochondria changes as a function of membrane potential.

INDEPENDENT CLAIMS are also included for the following:

(1) a method (M2) for identifying an agent that alters mitochondrial membrane potential, comprising:

(a) steps (a) to (c) of M1, where step (a) is carried out in the presence or absence of the test compound; and

(b) comparing the signal generated in the absence of the candidate agent to the signal generated in the presence of the candidate agent, and therefore identifying an agent that alters mitochondrial membrane potential;

(2) a method (M3) for identifying a regulator of an agent that alters mitochondrial membrane potential, comprising:

(a) steps (a) to (c) of M1, where step (a) is carried out in the presence or absence of the candidate regulator, and an agent that alters mitochondrial membrane potential or an agent identified by M2; and

(b) comparing the signal generated in the absence of the candidate regulator to the signal generated in the presence of the candidate regulator, and therefore identifying a regulator that alters mitochondrial membrane potential;

(3) a method (M4) for identifying an agent that preferentially alters mitochondrial membrane potential in mitochondria from a first biological source without substantially altering mitochondrial membrane potential in mitochondria from a second biological source;

(4) a method (M5) of detecting the fusion of a first mitochondrion and a second mitochondrion;

(5) a method (M6) of identifying an agent that alters the fusion of mitochondria;

(6) a reagent for measuring mitochondrial Delta psi , comprising a FRET (fluorescence resonance energy transfer) donor molecule and a FRET acceptor molecule, where the accumulation of at least one of the molecules in mitochondria is dependent on Delta psi and the accumulation of the other molecules in mitochondria is independent of Delta psi ;

(7) a kit comprising the reagent of (6) and ancillary reagents for measuring mitochondrial Delta psi ;

(8) a method (M7) for assaying cellular membrane potential, comprising:

(a) steps (a) and (b) of M1, where the sample comprises at least one cellular membrane instead of the mitochondria and the first and second energy transfer molecules each localize independently of one another to the same membrane site or to acceptably adjacent membrane sites such that at least one of the energy transfer molecules localizes to a cellular membrane that forms a subcellular compartment; and

(b) detecting a signal generated by energy transfer from the first energy transfer molecule to the second energy transfer molecule, where the concentration of at least one of the energy transfer molecules in the membrane site changes as a function of membrane potential;

(9) a method (M8) for identifying an agent that alters a cellular membrane potential;

(10) a method (M9) for identifying a regulator of an agent that alters cellular membrane potential;

(11) a method (M10) for identifying an agent that preferentially alters a cellular membrane potential in a membrane from a first biological source (or sample) without substantially altering cellular membrane potential in a membrane from a second biological source (or sample);

(12) a method (M11) for detecting a specific type of cell in a sample, comprising:

(a) steps (a) and (b) of M1; and

(b) detecting a signal generated by energy transfer from the first

energy transfer molecule to the second energy transfer molecule, where at least one of the energy transfer molecules preferentially accumulates in the specific type of cell and the signal correlates with the presence of the specific type of cell in the sample;

(13) a method (M12) for identifying a Delta psi m stabilizing agent;

(14) a Delta psi m stabilizing agent identified by M12; and

(15) a method (M13) of treating stroke comprising administering the Delta psi m stabilizing agent of (14) to a patient.

ACTIVITY - Nootropic; neuroprotective; antiparkinsonian; cytostatic; antipsoriatic; neuroleptic; cerebroprotective.

No biological data given.

MECHANISM OF ACTION - Mitochondrial membrane potential agonists and antagonists.

No biological data given.

USE - The method is used to develop assays of subcellular conditions or intracellular processes that are associated with diseases or disorders, e.g. Alzheimer's disease, Parkinson's disease or type II diabetes. The Delta psi m stabilizing agent is useful for treating stroke (all claimed).

Agents that alters a mitochondrial or cellular membrane potential are useful for treating diabetes, Alzheimer's disease, Parkinson's disease, schizophrenia, stroke, hyperproliferative diseases such as cancer and psoriasis.

The methods are also useful for to identify and characterize such agents.

Dwg.0/24

FS CPI EPI

FA AB; DCN

MC CPI: B04-B04H; B04-C01; B04-E01; B04-N0400E; B11-C07B3; B11-C08E; B12-K04A; B12-K04E; B14-F01; B14-H01; B14-J01A3; B14-J01A4; B14-J01B3; B14-L01; B14-L06; B14-N16; B14-N17C; B14-S04; D05-H09

EPI: S03-E14H

TECH UPTX: 20010207

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: The excited energy donor molecule transfers energy to the energy acceptor molecule to produce an excited energy acceptor molecule, and the signal detected in step (c) results from energy released by the excited energy acceptor molecule. The energy transfer from the first energy transfer molecule to the second energy transfer molecule results in a decrease in the detectable signal. M1 further comprises contacting the mitochondria with an agent (i.e. an ionophore) that induces dissipation of mitochondrial membrane potential or an agent (e.g. CCCP (carbonyl cynaide m-chlorophenyl-hydrazone) and FCCP (carbonyl cyanide p-(trifluoromethoxy)phenyl-hydrazone)) that induces collapse of mitochondrial membrane potential. The sample is washed prior to the step of detecting a signal. The signal detected in step (c) is compared with a reference signal. The reference signal is generated by an indicator selected from an indicator of cell number, an indicator of mitochondrial mass, an indicator of cellular protein, an indicator of cellular DNA, an indicator of mitochondrial DNA, an indicator of mitochondrial protein or an indicator of fluid volume. The sample comprises one or more mitochondria that are present within at least one cell, and where the signal detected in step (c) is compared with a reference signal. The reference signal is generated from a subcellular site selected from a mitochondrial outer membrane, a mitochondrial inner membrane, a mitochondrial intermembrane space, a mitochondrial matrix, cytoplasm, nucleus, nuclear membrane or plasma membrane. Alternatively, the reference signal is generated from extracellular medium. The mitochondria are present within at least one cell during at least one step. The cell is an organism, a cultured cell, a cybrid cell, a plant cell or an animal cell.

The cell is present in a biological sample derived from a multicellular organism such as a plant or an animal such as a human. The human has, is suspected of having or is at risk of having a disease or disorder associated with organellar dysfunction, e.g. organellar dysfunction is mitochondrial dysfunction such as lysosomal dysfunction.

The first and second energy transfer molecules localize to a

submitochondrial site selected from the mitochondrial matrix or mitochondrial inner membrane. The concentration of the first energy transfer molecule in the submitochondrial site does not change as a function of membrane potential, and the concentration of the second energy transfer molecule in the mitochondrial matrix decreases as a function of membrane potential.

The first energy transfer molecule (F1) has an excitation maximum at a wavelength of 373 nm to 390 nm, and an emission maximum at a wavelength of 400 nm to 500 nm and the second energy transfer molecule (S1) has an excitation maximum at a wavelength of 400 nm to 500 nm. F1 is a fusion protein comprising:

(a) a blue-shifted green fluorescent protein having a mutation in at least one of Phe-64, Ser-65, Tyr-66, Val-68 or Tyr-145; and

(b) a polypeptide sequence that localizes the fusion protein to a submitochondrial site.

S1 is selected from DASPEI (2-(4-(dimethylamino)styryl)-N-ethylpyridinium iodide), DASPMI (dimethylaminostyrylmethylpyridinium iodide), 4-Di-1-ASP (4-(4-(dimethylamino)styryl)-N-methylpyridinium iodide), 2-Di-1-ASP ASP (2-(4-(dimethylamino)styryl)-N-methylpyridinium iodide), DiOC7(3) (3,3'-diheptyloxadicarbocyanine iodide), DiOC6(3) (3,3'-dihexyloxadicarbocyanine iodide), JC-1 (5,5',6,6'-tetrachloro-1,1',3,3'-tetraethylbenzimidazoylcarbocyanine iodide) and SYTO (RTM) 18 yeast mitochondrial stain.

The first energy transfer molecule (F2) has an excitation maximum at a wavelength of 425 nm to 440 nm, and an emission maximum at a wavelength of 450 nm to 535 nm and the second energy transfer molecule (S2) has an excitation maximum at a wavelength of 450 nm to 530 nm. F2 is a fusion protein comprising:

(a) a cyan-shifted green fluorescent protein polypeptide having a mutation in at least one of Phe-64, Ser-65, Tyr-66, Asn-146, Met-153, Val-163 or Asn-212; and

(b) a polypeptide sequence that localizes the fusion protein to a submitochondrial site.

S2 is selected from DASPEI, 2-Di-1-ASP, DiOC6(3), SYTO (RTM) 18 yeast mitochondrial stain, rhodamine 6G, JC-1, NBD C6-ceramide or NBD C6-sphingomyelin

The first energy transfer molecule (F3) has an excitation maximum at a wavelength of 470 mn to 500 nm, and an emission maximum at a wavelength of 505 nm to 565 nm and the second energy transfer molecule (S3) has an excitation maximum at a wavelength of 505 nm to 565 nm. F3 is selected from nonylacridine orange (NAO), MitoTracker (RTM) Green FM, MitoFluor (RTM) Green, or a fusion protein, where the fusion protein comprises:

(a) a green fluorescent protein selected from a wildtype green fluorescent protein, a red-shifted green fluorescent protein having a mutation in one or more of Phe-64, Ser-65, Tyr-66, Gln-69, Ser-72 and Thr-203, or a yellow-shifted green fluorescent protein having a mutation in one or more of Phe-64, Ser-65, Tyr-66, Gln-69, Ser-72 or Thr-203; and

(b) polypeptide sequence that localizes the fusion protein to a submitochondrial site.

S3 is selected from rhodamine 123, JC-1, tetrabromorhodamine 123, rhodamine 6G, TMRM (tetramethylrhodamine, methyl ester), TMRE (tetramethylrhodamine, ethyl ester), tetramethylrosamine or rhodamine B.

The first energy transfer molecule (F4) has an excitation maximum at a wavelength of 545 mn to 560 nm, and an emission maximum at a wavelength of 565 nm to 625 nm and the second energy transfer molecule (S4) has an excitation maximum at a wavelength of 565 nm to 625 nm. F4 is selected from MitoTracker (RTM) Orange CMTMRos and S4 is DiOC2(5) (3,3'-diethyloxadicarbocyanine iodide).

The first energy transfer molecule (F5) has an excitation maximum at a wavelength of 495 mn to 510 nm, and an emission maximum at a wavelength of 510 nm to 570 nm and the second energy transfer molecule (S5) has an excitation maximum at a wavelength of 510 nm to 560 nm. F5 is selected from a fusion protein comprising:

(a) a polypeptide sequence selected from 'FLASH' (**fluorescein arsenical helix** binder) protein or a yellow-shifted green fluorescent protein sequence having a mutation in one or more of

Ser-65, Tyr-66, Ser-72 or Thr-203; and
(b) a polypeptide sequence that localizes the fusion protein to a submitochondrial site.
S5 is selected from JC-1, tetrabromorhodamine 123, rhodamine 6G, TMRM, TMRE, tetramethylrosamine, rhodamine B or 4-dimethylamino-tetramethylrosamine.
A relative amount of the signal generated by energy transfer is detected. The signal is detected over a period of time and integrated, and a rate of change in the signal level is determined. The membrane potential comprises an electric potential, a pH potential, or both. The first and second energy transfer molecules localize to within 10 to 100, preferably 20 to 50, angstroms of each other. The signal is generated by fluorescence resonance energy transfer.
In M3, the regulator is an agonist or antagonist of the agent that alters mitochondrial potential. The agent is an apoptogen, a thapsigargin, an ionophore (e.g. ionomycin or A23187), or an excitatory amino acid (e.g. glutamate, NAAG (undefined), NMDA (N-methyl-D-aspartate), AMPA (undefined), APPA (undefined) or kainate) or its derivatives.
M4 comprises:
(a) contacting, in the absence and presence of a candidate agent, a biological sample (from each biological source) comprising one or more mitochondria simultaneously or sequentially and in either order with a first and a second energy transfer molecule that is not endogenous to the mitochondria;
(b) steps (a)(i), (a)(ii), (b) and (c) of M1; and
(c) comparing the signal generated in each sample in the absence of the candidate agent to the signal generated in each sample in the presence of the candidate agent, and therefore identifying an agent that preferentially alters mitochondrial membrane potential.
The first and second biological samples are from distinct biological sources, preferably tissues. The first biological source is a mammal suspected of having, diagnosed as having or predisposed to having a disease, and the second biological source is a mammal that is not suspected of having and has not been diagnosed as having or predisposed to having the disease. The first and second biological sources are both human. The disease is Alzheimer's disease, Parkinson's disease or type II diabetes. When the biological source is a tissue, the first and second tissues are derived from the same subject, a subject of the same species or subjects of distinct species.
M5 comprises:
(a) contacting a first sample comprising one or more mitochondria with a first energy transfer molecule that is not endogenous to the mitochondria;
(b) contacting a second sample comprising one or more mitochondria with a second energy transfer molecule that is not endogenous to the mitochondria, where the first energy transfer molecule is an energy donor molecule and the second energy transfer molecule is an energy acceptor molecule;
(c) contacting the first sample with the second sample under conditions and for a time sufficient to permit mitochondrial fusion;
(d) exciting the energy donor molecule to produce an excited energy donor molecule; and
(e) detecting a signal generated by energy transfer from the first energy transfer molecule to the second energy transfer molecule, and therefore determining fusion of the first mitochondrion and the second mitochondrion;
M6 comprises:
(a) steps (a) and (b) of M5;
(b) carrying out step (c) of M5 in the presence and absence of the candidate agent;
(c) steps (d) of M5;
(d) detecting a signal generated by energy transfer from the first energy transfer molecule to the second energy transfer molecule; and
(e) comparing the signal detected in the absence of the candidate agent to the signal detected in the presence of the candidate agent, and therefore identifying an agent that alters the fusion of the mitochondria.
In M5 and M6, the first and second energy transfer molecules have the

properties described in (a)(i) and (a)(ii) or M1.
In M2 to M5, the agent increases, dissipates or collapses mitochondrial membrane potential, or alters an equilibrium distribution of at least one ionic species (e.g. calcium) on either side of a cellular membrane (e.g. mitochondrial membrane). The agent (A1) that collapses mitochondrial membrane potential is an apoptogen and it interacts with an adenine nucleotide translocator. A1 is an atractyloside, carboxyatractyloside, bongkrekic acid or isobongkrekic acid.
In M7, the first energy transfer molecule localizes to a first membrane site selected from mitochondria, endoplasmic reticulum, golgi, lysosome or plasma membrane and the second energy transfer molecule localizes to the same membrane site or to an acceptably adjacent membrane site selected from mitochondria, endoplasmic reticulum, golgi, lysosome or plasma membrane. The concentration of the first energy transfer molecule in the first membrane site does not change as a function of membrane potential, and the concentration of the second energy transfer molecule in the membrane site decreases as a function of membrane potential. The first energy transfer molecule is F1, F2, F3 or F4 and the second energy transfer molecule is S1, S2, S3 or S4, respectively.
M8 comprises:
(a) contacting, in the absence and presence of a candidate agent, a sample comprising one or more cellular membranes simultaneously or sequentially and in either order with each of a first and a second energy transfer molecule that is not endogenous to the sample, where:
(i) the first and second energy transfer molecules each localize independently of one another to the same membrane site or to acceptably adjacent membrane sites such that at least one of the energy transfer molecules localizes to a cellular membrane that forms a subcellular compartment, and
(ii) the first energy transfer molecule is an energy donor molecule and the second energy transfer molecule is an energy acceptor molecule;
(b) exciting the energy donor molecule to produce an excited energy donor molecule;
(c) detecting a signal generated by energy transfer from the first energy transfer molecule to the second energy transfer molecule, where the concentration of at least one of the energy transfer molecules in the subcellular compartment changes as a function of membrane potential; and
(d) comparing the signal generated in the absence of the candidate agent to the signal generated in the presence of the candidate agent, and therefore identifying an agent that alters cellular membrane potential.
M9 comprises:
(a) steps (a) to (c) of M8, where step (a) is carried out in the presence or absence of the candidate regulator, and an agent that alters cellular membrane potential or an agent identified by M8; and
(b) comparing the signal generated in the absence of the candidate regulator to the signal generated in the presence of the candidate regulator, and therefore identifying a regulator that alters mitochondrial membrane potential.
M10 comprises steps (a) and (b) of M4, where the biological sample (from each biological source) comprising one or more cellular membranes instead of one or more mitochondria. Step (c) comparing the signal generated in each sample in the absence of the candidate agent to the signal generated in each sample in the presence of the candidate agent, and therefore identifying an agent that preferentially alters cellular membrane potential. The first and second biological samples are from distinct biological sources, preferably tissues.
M11 further comprises comparing the signal generated in the sample with the signal generated from a control sample lacking the specific type of cell. The specific type of cell is a cancer cell
M12 comprises:
(a) contacting, in the absence and presence of a candidate DELTA(psi)m stabilizing agent, an agent that alters DELTA(psi)m and a sample comprising one or more mitochondria simultaneously or sequentially and in either order with each of a first and a second energy transfer molecule that is not endogenous to the mitochondria, where the energy transfer molecules have the properties as described in (a)(i) and (a)(ii) of M1;

(b) steps (b) and (c) of M1;
(c) comparing the signal generated in the absence of the candidate DELTA(psi)m stabilizing agent, to the signal generated in the presence of the candidate DELTA(psi)m stabilizing agent, and therefore identifying DELTA(psi)m stabilizing agent.
The mitochondria are contained within cells. The agent that alters DELTA(psi)m is an agent that increases the level of cytosolic Ca2+. The agent that increases the level of cytosolic Ca2+ is selected from calcium ionophore or thapsigargin. The cells comprise one or more types of glutamate receptors. Alternatively, the agent that increases the level of cytosolic Ca2+ is an excitatory amino acid or its derivative, e.g. glutamate, NAAG, NMDA, AMPA, APPA and kainate.
In M1, M12 and M13, the cell is a permeabilized cell.
Preferred Reagent: The molecule that accumulates in mitochondria independent of DELTA(psi) is selected from NAO, MitoTracker (RTM) Green FM, MitoFluor (RTM), DAPI (4', 6-diamino-2-phenylindole), and a fusion protein comprising:
(a) a polypeptide selected from a red-shifted green fluorescent protein, a yellow-shifted green fluorescent protein and a 'FLASH' polypeptide, and
(b) a polypeptide sequence that localizes the fusion protein to the mitochondrial matrix or inner membrane.
The molecule that accumulates in mitochondria in a manner dependent on DELTA(psi) is selected of TMRM, TMRE, rhodamine 123, ethidum bromide, 4-Di-1-ASP, 2-Di-1-ASP or DASPEI.
The first FRET molecule that accumulates in mitochondria is formulated to dissolve to an extent necessary to saturate a population of cells in an aqueous solution with the first molecule within 0.01 to 2 minutes after being contacted with it, and the second molecule that accumulates in mitochondria is formulated to dissolve to an extent necessary to saturate a population of cells in an aqueous solution with the second molecule within 2.5 to 5 minutes after being contacted with it. One of the molecules that accumulates in mitochondria is dissolved in an aqueous solution, and the other of the molecules that accumulates in mitochondria is present in solid form in the reagent. The molecule that accumulates in mitochondria and that is present in solid form in the reagent is formulated to dissolve to an extent necessary to saturate a population of cells in an aqueous solution with the second molecule within 0.01 to 5 minutes after being contacted with it.

L94 ANSWER 2 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-288410 [24] WPIX
DNN N1999-215341 DNC C1999-085363
TI **Biarsenical** compounds that react specifically with cysteine residues.
DC B04 B05 D16 S03
IN GRIFFIN, B A; TSIEN, R Y; GRIFFIN, A B
PA (REGC) UNIV CALIFORNIA
CYC 83
PI WO 9921013 A1 19990429 (199924)* EN 76p G01N033-566
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
US 5932474 A 19990803 (199937) C12N015-63
AU 9911139 A 19990510 (199938) G01N033-566
US 6008378 A 19991228 (200007) C07F009-80
US 6054271 A 20000425 (200027) G01N033-566
EP 1032837 A1 20000906 (200044) EN G01N033-566
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9921013 A1 WO 1998-US22363 19981021; US 5932474 A US 1997-955206 19971021; AU 9911139 A AU 1999-11139 19981021; US 6008378 A US 1997-955859 19971021; US 6054271 A US 1997-955050 19971021; EP 1032837 A1 EP 1998-953881 19981021, WO 1998-US22363 19981021
FDT AU 9911139 A Based on WO 9921013; EP 1032837 A1 Based on WO 9921013

PRAI US 1997-955859 19971021; US 1997-955050 19971021; US 1997-955206 19971021
IC ICM C07F009-80; C12N015-63; G01N033-566
ICS C07D493-10; C12N015-09; C12N015-64
AB WO 9921013 A UPAB: 19990624
NOVELTY - **Biarsenical** compounds (BC) able to react specifically with cysteine residues in a target sequence to generate a detectable signal are new.
DETAILED DESCRIPTION - (BC) have formula (I) including tautomers, anhydrides and salts:
X1 and X2 = chloro, bromo, iodo, ORa or SRa., or both together form groups of formula (f1)-(f4);
Ra = hydrogen, 1-4C alkyl, 2-hydroxyethyl, carboxymethyl or cyano;
Z = 1,2-ethanediyl, 1,2- or 1,3-propanediyl, 2,3-butanediyl, 1,2-phenylene (optionally 4-methyl substituted), 1,2-cycopentanediyl, 1,2-cyclohexanediyl, 3-(hydroxy or sulfo)-1,2-propanediyl or 1,2-bis(carboxy)-1,2-ethanediyl;
Y1 and Y2 = hydrogen or methyl, or together form a ring such that (I) has the formula (I')
M = oxygen, sulfur, methylene, dimethylmethylene or imino;
R1 and R2 = ORa, acetyloxy, NRaRb or hydrogen;
R3 and R4 = hydrogen, fluoro, chloro, bromo, iodo, ORa or Ra;
R1 and R2, and/or R3 and R4 together form a ring in which:
(i) one of R1 or R3 is 2-3C alkyl and the other NRa, and
(ii) one of R2 and R4 is 2-3C alkyl and the other is NRa;
Rb is as Ra;
Q = CRaRb, CRaORb, CO or a spirolactone of formulae (Ia), (Ib) and (Ic) with the spiro linkage at C1:
INDEPENDENT CLAIMS are also included for the following:
(1) a binding partner (BP) comprising carrier polypeptide (CP) and heterologous target sequence (TS) which contains at least one Cys that can react specifically with the compound (II);
(2) vector containing a nucleic acid sequence that encodes BP;
(3) host cell containing an exogenous BP;
(4) method for labeling a carrier by reacting BP with (I);
(5) crosslinking two BP by reacton with a tetra-**arsenical** compound (tac);
(6) kits containing (BC) plus BP or a vector encoding TS;
(7) complex of (BC) and TS; and
(8) (tac) consisting of two (BC) coupled through a linking group:
ACTIVITY - None given.
MECHANISM OF ACTION - None given.
USE - (I) are used:
(i) as labels that allow identification of carrier molecules, e.g. in polypeptide purification, immunoassays or other chemical or biological assays, including labeling in vivo, e.g. to identify, locate or quantify polypeptides or nucleic acids);
(ii) for attaching a polypeptide to a solid substrate; or
(iii) to induce a polypeptide domain to adopt a more nearly alpha - **helical** form, e.g. a conformation that can bind a drug.
Tetra-arsenical compounds derived from (I) are used to crosslink two binding partners, e.g. to study the effect of dimerization on signal transduction.
ADVANTAGE - (I) react specifically with Cys-containing targets, and can be engineered to have particular properties, especailly ability to cross a biological membrane and absence of any self-fluorescence. Both (I) and its target sequence are small, and (I) binding between them is reversible, e.g. by treatment with a dithiol. Particularly (I) becomes fluorescent when bound to its target, but with a significant red-shift from the fluorescence of fluorescein, allowing detection with very low background.
FS CPI EPI
FA AB; GI; DCN
MC CPI: B12-K04A; D05-H09; D05-H10; D05-H12E; D05-H14
EPI: S03-E14H4
TECH UPTX: 19990624

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred binding partners: BP has a TS attached to either end of CP, or internally. TS preferably has four Cys, especially the alpha-**helical** domain Cys-Cys-X-Y-Cys-Cys
X and Y = amino acids, preferably those with high alpha-**helical** propensity
. CP is particularly an antibody or enzyme.
Preferred compounds: In (I), X1 and X2 particularly form SCH2CH2S and Q is a spiro-lactone. (I) are particularly able to cross a biological membrane and may be substituted by one or more detectable groups. Optionally it is immobilized on a solid phase.
Preparation: Typically, **fluorescein** mercuric acetate (commercially available) was reacted with **arsenic** trichloride in presence of palladium diacetate, and the resulting bis-dicholorarsino derivative reacted with a dithiol. (tac) are produced similarly from a tetrakis(acetomercuri) bifluorescein.
Process: To label a carrier molecule, BP is reacted with (I). Optionally (I) or TS is immobilized and (I) may subsequently released from TS. The signal, particularly fluorescent, generated by (I) may be monitored. The crosslinking reaction of (e) may involve same or different BP.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred vectors: The vectors include a gene containing coding sequences for both TS and CP.
Preferred host cells: The cells are bacteria, yeast, insect, mammalian or plant cells.

=> d his l82-

(FILE 'BIOSIS' ENTERED AT 16:04:07 ON 13 NOV 2001)

FILE 'WPIX' ENTERED AT 16:05:09 ON 13 NOV 2001

```
L82          1394 S L67
                  E FLUORESCEIN/DCN
                  E E3+ALL
L83           643 S E2 OR 1594/DRN
L84            51 S E4
L85            11 S E6
L86          1792 S L82-L85
L87            14 S L86 AND ARSEN?
L88            10 S L86 AND (B133 OR B233 OR B333 OR B433 OR B533 OR B633)/M0,M1,
L89            16 S L87,L88
L90            14 S L86 AND ?ARSEN?
L91            16 S L89,L90
L92             2 S L91 AND HELI?
L93             1 S L91 AND (BISARSEN? OR BIARSEN? OR BI ARSEN?)
L94             2 S L92,L93
```

FILE 'WPIX' ENTERED AT 16:09:35 ON 13 NOV 2001
SET COST ON

FILE 'HOME' ENTERED AT 15:06:11 ON 02 NOV 2001

=> file medline, biosis, toxlit, embase, dgene, uspat, wpids, japio, jicst, frosti, fsta, cen, ceaba, biotechds, scisearch, agricola

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.30	0.30

FILE 'MEDLINE' ENTERED AT 15:07:01 ON 02 NOV 2001

FILE 'BIOSIS' ENTERED AT 15:07:01 ON 02 NOV 2001
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FILE 'USPATFULL' ENTERED AT 15:07:01 ON 02 NOV 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 15:07:01 ON 02 NOV 2001
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FILE 'SCISEARCH' ENTERED AT 15:07:01 ON 02 NOV 2001
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FILE 'AGRICOLA' ENTERED AT 15:07:01 ON 02 NOV 2001

=> s fluorescein arsenical helix binder or FLAsh

L1 188451 FLUORESCEIN ARSENICAL HELIX BINDER OR FLASH

=> s l1 and modified

L2 29523 L1 AND MODIFIED

=> s l2 and target sequence motif

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  11 FILES SEARCHED...
L3            0 L2 AND TARGET SEQUENCE MOTIF

=> s l2 and target sequence

L4          467 L2 AND TARGET SEQUENCE

=> s polypeptide () method () isolation

  11 FILES SEARCHED...
L5            0 POLYPEPTIDE (W) METHOD (W) ISOLATION

=> s polypeptide  and method of isolated

  10 FILES SEARCHED...
L6          209 POLYPEPTIDE AND METHOD OF ISOLATED

=> s l6 and l4

L7            1 L6 AND L4

=> d l7 ti abs ibib tot

L7   ANSWER 1 OF 1  USPATFULL
TI     Thermophilic polymerase III holoenzyme
AB     The present invention relates to gene and amino acid sequences encoding
       DNA polymerase III holoenzyme subunits and structural genes from
       thermophilic organisms. In particular, the present invention provides
       DNA polymerase III holoenzyme subunits of T. thermophilus. The present
       invention also provides antibodies and other reagents useful to
identify
       DNA polymerase III molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:         2001:78932  USPATFULL
TITLE:                    Thermophilic polymerase III holoenzyme
INVENTOR(S):              McHenry, Charles S., Denver, CO, United States
                          Seville, Mark, Denver, CO, United States
                          Cull, Millard G., Denver, CO, United States
PATENT ASSIGNEE(S):       University Technology Corporation, CO, United States
                          (U.S. corporation)

                               NUMBER         KIND    DATE
                          --------------- ------ --------
PATENT INFORMATION:       US 6238905          B1   20010529
APPLICATION INFO.:        US 1997-928213           19970912  (8)
DOCUMENT TYPE:            Utility
FILE SEGMENT:             Granted
PRIMARY EXAMINER:         Stole, Einar
LEGAL REPRESENTATIVE:     Medlen & Carroll, LLP
NUMBER OF CLAIMS:         39
EXEMPLARY CLAIM:          1
NUMBER OF DRAWINGS:       29 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT:               4725
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d his

     (FILE 'HOME' ENTERED AT 15:06:11 ON 02 NOV 2001)
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     FILE 'MEDLINE, BIOSIS, TOXLIT, EMBASE, DGENE, USPATFULL, WPIDS, JAPIO,
     JICST-EPLUS, FROST[redacted] FSTA, CEN, CEABA-VTB, BIOTECH[redacted] SCISEARCH,
     AGRICOLA' ENTERED[redacted] 15:07:01 ON 02 NOV 2001
L1        188451 S FLUORESCEIN ARSENICAL HELIX BINDER OR FLASH
L2         29523 S L1 AND MODIFIED
L3             0 S L2 AND TARGET SEQUENCE MOTIF
L4           467 S L2 AND TARGET SEQUENCE
L5             0 S POLYPEPTIDE () METHOD () ISOLATION
L6           209 S POLYPEPTIDE  AND METHOD OF ISOLATED
L7             1 S L6 AND L4

=> s l4 and (polypeptide)

L8           139 L4 AND (POLYPEPTIDE)

=> s l8 and isolation

L9           101 L8 AND ISOLATION

=> s l9 and acylation

L10           46 L9 AND ACYLATION

=> s l10 and alanine

L11           38 L10 AND ALANINE

=> s l11 and agarose

L12           36 L11 AND AGAROSE

=> d l12 ti abs ibib tot


L12  ANSWER 1 OF 36  USPATFULL
TI     Human galectin homolog
AB     The present invention provides a polynucleotide which identifies and
       encodes a novel human galectin-8. The invention provides for
genetically
       engineered expression vectors and host cells comprising the nucleic
acid
       sequence encoding human galectin-8. The invention also provides for the
       production and use of substantially purified human galectin-8 in
       pharmaceutical compositions to increase immune responses. The invention
       also provides for the use of antisense molecules and antibodies in
       pharmaceutical compositions to decrease immune response. The invention
       also describes diagnostic assays which utilize the polynucleotide to
       hybridize with the transcripts and/or genomic DNA encoding human
       galectin-8 and anti-human galectin-8 antibodies which specifically bind
       to human galectin-8.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:         2001:142466  USPATFULL
TITLE:                    Human galectin homolog
INVENTOR(S):              Hawkins, Phillip R., Mountain View, CA, United States
                          Bandman, Olga, Mountain View, CA, United States
PATENT ASSIGNEE(S):       Incyte Genomics, Inc., Palo Alto, CA, United States
                          (U.S. corporation)

                               NUMBER         KIND    DATE
                          ---------------- ------ --------
PATENT INFORMATION:       US 6281333          B1   20010828
APPLICATION INFO.:        US 1998-212146           19981215  (9)
RELATED APPLN. INFO.:     Division of Ser. No. US 1996-728521, filed on 9 Oct
```

1996, now patented, Pat. No. US 5869289
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Achutamurthy, Ponnathapu
ASSISTANT EXAMINER: Tung, Peter P.
LEGAL REPRESENTATIVE: Incyte Genomics, Inc.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 2410
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 2 OF 36 USPATFULL
TI Human KDEL receptor
AB The present invention provides a novel human KDEL receptor (NHKR) and polynucleotides which identify and encode NHKR. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding NHKR and a method for producing NHKR. The invention also provides for agonists, antibodies, or
antagonists specifically binding NHKR, and their use, in the prevention and treatment of diseases associated with expression of NHKR. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding NHKR for the treatment of diseases associated with the expression of NHKR. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding NHKR.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:106057 USPATFULL
TITLE: Human KDEL receptor
INVENTOR(S): Bandman, Olga, Mountain View, CA, United States
Hillman, Jennifer L., San Jose, CA, United States
Goli, Surya K., Sunnyvale, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6103874		20000815
APPLICATION INFO.:	US 1998-133735		19980813 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-753159, filed on 21 Nov 1996, now patented, Pat. No. US 5824500
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kemmerer, Elizabeth
ASSISTANT EXAMINER: Basi, Nirmal S.
LEGAL REPRESENTATIVE: Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 2107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 36 USPATFULL
TI Human ATP binding-cassette transport protein
AB The invention provides a human ATP-binding cassette transport protein (ABCtxH) and polynucleotides which identify and encode ABCtxH. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with expression of ABCtxH.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:80850 USPATFULL

TITLE: Human ATP binding-cassette transport protein
INVENTOR(S): [redacted]illman, Jennifer L., Mountain [redacted]w, CA, United States
[redacted]hah, Purvi, Sunnyvale, CA, United States
Corley, Neil C., Mountain View, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6080842		20000627
APPLICATION INFO.:	US 1998-195391		19981118 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-895522, filed on 17 Jul 1997, now patented, Pat. No. US 5858719
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Carlson, Karen Cochrane
LEGAL REPRESENTATIVE: Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2068
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 36 USPATFULL
TI Human actVA-ORF4-like protein
AB The invention provides a human actVA-ORF4-like protein (A-ORFP) and polynucleotides which identify and encode A-ORFP. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with expression of A-ORFP.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:80731 USPATFULL
TITLE: Human actVA-ORF4-like protein
INVENTOR(S): Lal, Preeti, Santa Clara, CA, United States
Tang, Tom, San Jose, CA, United States
Corley, Neil C., Mountain View, CA, United States
Shah, Purvi, Sunnyvale, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6080723		20000627
APPLICATION INFO.:	US 1998-216294		19981218 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-923856, filed on 3 Sep 1997, now patented, Pat. No. US 5928894
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Prouty, Rebecca E.
ASSISTANT EXAMINER: Longton, Enrique D.
LEGAL REPRESENTATIVE: Hamlet-Cox, DianaIncyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 2284
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 5 OF 36 USPATFULL
TI Cyclic nucleotide phosphodiesterases
AB The invention provides human cyclic nucleotide phosphodiesterases (PDE8)
and polynucleotides which identify and encode PDE8. The invention also provides expression vectors, host cells, antibodies, agonists, and

antagonists. The invention also provides methods for treating or preventing diso rs associated with expression PDE8.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:80556 USPATFULL
TITLE: Cyclic nucleotide phosphodiesterases
INVENTOR(S): Au-Young, Janice, Berkeley, CA, United States
Cocks, Benjamin G., Palo Alto, CA, United States
Coleman, Roger, Mountain View, CA, United States
Seilhamer, Jeffrey J., Los Altos, CA, United States
Fisher, Douglas A., Groton, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6080548		20000627
APPLICATION INFO.:	US 1999-255748		19990223 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-974565, filed on 19 Nov 1997, now patented, Pat. No. US 5932423
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Schwartzman, Robert A.
LEGAL REPRESENTATIVE: Incyte Pharmaceuticals, Inc, Murry, Lynn E.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 32 Drawing Page(s)
LINE COUNT: 2831
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 6 OF 36 USPATFULL
TI Transducin beta-1 subunit
AB The invention provides a human transducin beta-1 subunit (TBS) and polynucleotides which identify and encode TBS. The invention also provides expression vectors, host cells, agonists, antibodies, and antagonists. The invention also provides methods for treating or preventing diseases associated with expression of TBS.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:77204 USPATFULL
TITLE: Transducin beta-1 subunit
INVENTOR(S): Bandman, Olga, Mountain View, CA, United States
Lal, Preeti, Santa Clara, CA, United States
Corley, Neil C., Mountain View, CA, United States
Shah, Purvi, Sunnyvale, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077688		20000620
APPLICATION INFO.:	US 1997-965600		19971106 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Carlson, Karen Cochrane
ASSISTANT EXAMINER: Stole, Einar
LEGAL REPRESENTATIVE: Muenzen, Colette C.Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 2122
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 7 OF 36 USPATFULL

TI G-protein coupled receptors associated with immune response
AB The invention provides two human G-protein coupled receptors associated with immune response (GRIR) and polynucleotides which identify and encode GRIR. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for treating or preventing disorders associated with expression of GRIR.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2000:61412 USPATFULL
TITLE:	G-protein coupled receptors associated with immune response
INVENTOR(S):	Lal, Preeti, Santa Clara, CA, United States Bandman, Olga, Mountain View, CA, United States Hillman, Jennifer L., Mountain View, CA, United States Yue, Henry, Sunnyvale, CA, United States
PATENT ASSIGNEE(S):	Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6063596		20000516	
APPLICATION INFO.:	US 1997-988876		19971211	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Ulm, John
LEGAL REPRESENTATIVE: Muenzen, Colette C.Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 2777
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 8 OF 36 USPATFULL
TI Human prostate-associated protease
AB The present invention provides a human prostate-associated protease (HUPAP) and polynucleotides which identify and encode HUPAP. The invention also provides expression vectors, host cells, antibodies, antagonists, and antisense molecules. The invention also provides methods for treating disorders associated with expression of HUPAP.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2000:37590 USPATFULL
TITLE:	Human prostate-associated protease
INVENTOR(S):	Bandman, Olga, Mountain View, CA, United States Lal, Preeti, Sunnyvale, CA, United States
PATENT ASSIGNEE(S):	Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6043033		20000328	
APPLICATION INFO.:	US 1997-807151		19970227	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wax, Robert A.
LEGAL REPRESENTATIVE: Murry, Lynn E.Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 2114
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 9 OF 36 USPATFULL
TI Nucleic acid se[redacted]nce of senescence asssociated e
AB Human gene GC6 [redacted] expressed more abundantly in senescent cells than young cells. Isolated, purified, and recombinant nucleic acids and proteins corresponding to the human GC6 gene and its mRNA and protein products, as well as peptides and antibodies corresponding to the GC6 protein can be used to identify senescent cells, distinguish between senescent and young cells, identify agents that alter senescent gene expression generally and GC6 expression specifically; such agents as well as GC6 gene and gene products and products corresponding thereto can be used to prevent and treat diseases and conditions relating to cell senescence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2000:18280 USPATFULL		
TITLE:	Nucleic acid sequence of senescence asssociated gene		
INVENTOR(S):	Funk, Walter, Hayward, CA, United States		
PATENT ASSIGNEE(S):	Geron Corporation, Menlo Park, CA, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6025194		20000215
APPLICATION INFO.:	US 1997-974180		19971119 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Huff, Sheela		
ASSISTANT EXAMINER:	Bansal, Geetha P.		
LEGAL REPRESENTATIVE:	Earp, David J., Kaster, Kevin		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1,6		
LINE COUNT:	4667		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 10 OF 36 USPATFULL
TI Nucleic acids encoding human tyrosine phosphatases
AB The present invention provides novel human protein tyrosine phosphatases (HPTP) and polynucleotides which identify and encode HPTP. The invention provides for genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding HPTP and for a method of producing HPTP. The invention also provides for pharmaceutical compositions comprising HPTP or antagonists of HPTP, and antibodies which specifically bind HPTP. Additionally, the invention provides antisense molecules to HPTP for treatment or prevention of diseases associated with abnormal expression of HPTP.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2000:12642 USPATFULL		
TITLE:	Nucleic acids encoding human tyrosine phosphatases		
INVENTOR(S):	Goli, Surya K., Sunnyvale, CA, United States		
PATENT ASSIGNEE(S):	Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6020179		20000201
APPLICATION INFO.:	US 1996-725532		19961003 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Teng, Sally P.		
LEGAL REPRESENTATIVE:	Mohan-Peterson, Sheela, Billings, Lucy J.Incyte Pharmaceuticals, Inc.		

NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM:
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1932
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 11 OF 36 USPATFULL
TI Human proteasome subunit proteins
AB The present invention provides polynucleotides which identify and encode novel human proteasome subunit proteins. The invention provides for genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding PSUB. The invention also provides for the use of substantially purified PSUB, antagonists, and in pharmaceutical compositions for the treatment of diseases associated with the expression of PSUB. Additionally, the invention provides for the use of antisense molecules to PSUB in pharmaceutical compositions for treatment of diseases associated with the expression of PSUB. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, fragments or the complement thereof, which hybridize with the genomic sequence or the transcript of polynucleotides encoding PSUB or anti-PSUB antibodies which specifically bind to PSUB.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:10017 USPATFULL
TITLE: Human proteasome subunit proteins
INVENTOR(S): Bandman, Olga, Mountain View, CA, United States
Au-Young, Janice, Berkeley, CA, United States
Hillman, Jennifer L., San Jose, CA, United States
Goli, Surya K., Sunnyvale, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6018028		20000125
APPLICATION INFO.:	US 1998-134591		19980813 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-701935, filed on 23 Aug 1996, now patented, Pat. No. US 5843715		

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kemmerer, Elizabeth
ASSISTANT EXAMINER: Romeo, David S.
LEGAL REPRESENTATIVE: Price, Esq., Leanne C.Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 1999
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 12 OF 36 USPATFULL
TI Polynucleotide encoding human G-protein coupled receptor
AB The invention provides a human G-protein coupled receptor (GRecH) and polynucleotides which identify and encode GRecH. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with expression of GRecH.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:155481 USPATFULL
TITLE: Polynucleotide encoding human G-protein coupled receptor

INVENTOR(S): Lal, Preeti, Santa Clara, CA, United States
[redacted]uegler, Karl J., Menlo Park, C[redacted] United States
Shah, Purvi, Sunnyvale, CA, United States
Corley, Neil C., Mountian View, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5994097		19991130	
APPLICATION INFO.:	US 1997-919624		19970828	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Mertz, Prema
LEGAL REPRESENTATIVE: Incyte Pharmaceuticals Inc.
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 2384
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 13 OF 36 USPATFULL
TI Human DP1 homolog
AB The invention provides a human DP1 homolog (DP1h)) and polynucleotides which identify and encode DP1h. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with expression of DP1h.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:117297 USPATFULL
TITLE: Human DP1 homolog
INVENTOR(S): Bandman, Olga, Mountain View, CA, United States
Guegler, Karl J., Menlo Park, CA, United States
Shah, Purvi, Sunnyvale, CA, United States
Petithory, Joanne R., Union City, CA, United States
Corley, Neil C., Mountain View, CA, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5958725		19990928	
APPLICATION INFO.:	US 1997-865336		19970529	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Feisee, Lila
ASSISTANT EXAMINER: Lazar-Wesley, Eliane
LEGAL REPRESENTATIVE: Incyte Pharmaceuticals, Inc.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 2150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 14 OF 36 USPATFULL
TI Regulator of cell signaling
AB The present invention provides a human regulator of G-protein signaling (HRGS) and polynucleotides which identify and encode HRGS. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding HRGS and a method for producing HRGS. The invention also provides for agonists, antibodies, or

antagonists specifically binding HRGS, and their use, in the prevention and treatment of diseases associated with expression of HRGS. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HRGS for the treatment of diseases associated with the expression of HRGS. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HRGS.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:113602 USPATFULL		
TITLE:	Regulator of cell signaling		
INVENTOR(S):	Hillman, Jennifer L., San Jose, CA, United States Goli, Surya K., Sunnyvale, CA, United States		
PATENT ASSIGNEE(S):	Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5955314		19990921
APPLICATION INFO.:	US 1996-748483		19961108 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Feisee, Lila		
ASSISTANT EXAMINER:	Sun-Hoffman, Lin		
LEGAL REPRESENTATIVE:	Billings, Lucy J.Incyte Pharmaceuticals, Inc.		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1967		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 15 OF 36 USPATFULL

TI Ras protein

AB The invention provides two human Ras proteins, referred to collectively as "RAPR" and individually as "RAPR-1" and "RAPR-2", and polynucleotides which identify and encode RAPR. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for preventing and treating disorders associated with expression of RAPR.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:102695 USPATFULL		
TITLE:	Ras protein		
INVENTOR(S):	Bandman, Olga, Mountain View, CA, United States Hillman, Jennifer L., Mountain View, CA, United States Guegler, Karl J., Menlo Park, CA, United States Tang, Y. Tom, Sunnyvale, CA, United States Corley, Neil C., Mountain View, CA, United States		
PATENT ASSIGNEE(S):	Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5945306		19990831
APPLICATION INFO.:	US 1997-991946		19971216 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lau, Kawai		
LEGAL REPRESENTATIVE:	Mohan-Peterson, Sheela, Billings, Lucy J.Incyte Pharmaceuticals, Inc.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		

NUMBER OF DRAWINGS: 12 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 466
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 16 OF 36 USPATFULL
TI Cyclic nucleotide phosphodiesterases
AB The invention provides human cyclic nucleotide phosphodiesterases (PDE8)
and polynucleotides which identify and encode PDE8. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for treating or preventing disorders associated with expression of PDE8.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:89000 USPATFULL
TITLE: Cyclic nucleotide phosphodiesterases
INVENTOR(S): Au-Young, Janice, Berkeley, CA, United States
Cocks, Benjamin G., Palo Alto, CA, United States
Coleman, Roger, Mountain View, CA, United States
Seilhamer, Jeffrey J., Los Altos Hills, CA, United States
Fisher, Douglas A., Groton, CT, United States
PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., Palo Alto, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5932423		19990803

<------User Break------>
u
=> d his

(FILE 'HOME' ENTERED AT 15:06:11 ON 02 NOV 2001)

FILE 'MEDLINE, BIOSIS, TOXLIT, EMBASE, DGENE, USPATFULL, WPIDS, JAPIO, JICST-EPLUS, FROSTI, FSTA, CEN, CEABA-VTB, BIOTECHDS, SCISEARCH, AGRICOLA' ENTERED AT 15:07:01 ON 02 NOV 2001

L1 188451 S FLUORESCEIN ARSENICAL HELIX BINDER OR FLASH
L2 29523 S L1 AND MODIFIED
L3 0 S L2 AND TARGET SEQUENCE MOTIF
L4 467 S L2 AND TARGET SEQUENCE
L5 0 S POLYPEPTIDE () METHOD () ISOLATION
L6 209 S POLYPEPTIDE AND METHOD OF ISOLATED
L7 1 S L6 AND L4
L8 139 S L4 AND (POLYPEPTIDE)
L9 101 S L8 AND ISOLATION
L10 46 S L9 AND ACYLATION
L11 38 S L10 AND ALANINE
L12 36 S L11 AND AGAROSE

=> s beta alanine

L13 15249 BETA ALANINE

=> s acylation and l13

L14 611 ACYLATION AND L13

=> s l14 and alpha-helical region

L15 1 L14 AND ALPHA-HELICAL REGION

=> d l15 ti abs ibib tot

L15 ANSWER 1 OF 1 USPATFULL
TI Tetrahydronaphthalene derivatives
AB The present invention is concerned with tetrahydronaphthalene derivatives which are mimics of domains of peptides or proteins which can interact with other proteins or with DNA or RNA through .alpha.-helical conformation, said tetrahydronaphthalene derivatives having the formulae: ##STR1## are valuable aids in the determination of biologically active peptide sequences and are accordingly so-called "research tools". They are, however, also potentially suitable as medicaments.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	97:56790 USPATFULL
TITLE:	Tetrahydronaphthalene derivatives
INVENTOR(S):	Abrecht, Christine, Lengnau, Switzerland Muller, Klaus, Munchenstein, Switzerland Obrecht, Daniel, Basle, Switzerland Trzeciak, Arnold, Schopfheim, Germany, Federal Republic of
PATENT ASSIGNEE(S):	Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5644024		19970701	
APPLICATION INFO.:	US 1994-292128		19940817	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	CH 1993-2552	19930827

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Bond, Robert T.
LEGAL REPRESENTATIVE:	Johnston, George W., Tramaloni, Dennis P., Pokras, Bruce A.
NUMBER OF CLAIMS:	24
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT:	2621

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:06:11 ON 02 NOV 2001)

FILE 'MEDLINE, BIOSIS, TOXLIT, EMBASE, DGENE, USPATFULL, WPIDS, JAPIO, JICST-EPLUS, FROSTI, FSTA, CEN, CEABA-VTB, BIOTECHDS, SCISEARCH, AGRICOLA' ENTERED AT 15:07:01 ON 02 NOV 2001

L1	188451	S	FLUORESCEIN ARSENICAL HELIX BINDER OR FLASH
L2	29523	S	L1 AND MODIFIED
L3	0	S	L2 AND TARGET SEQUENCE MOTIF
L4	467	S	L2 AND TARGET SEQUENCE
L5	0	S	POLYPEPTIDE () METHOD () ISOLATION
L6	209	S	POLYPEPTIDE AND METHOD OF ISOLATED
L7	1	S	L6 AND L4
L8	139	S	L4 AND (POLYPEPTIDE)
L9	101	S	L8 AND ISOLATION
L10	46	S	L9 AND ACYLATION

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L11           38 S L10 AND ALANINE
L12           36 S L11 AND AGAROSE
L13        15249 S BETA ALANINE
L14          611 S ACYLATION AND L13
L15            1 S L14 AND ALPHA-HELICAL REGION

=> s l2 and agarose

L16          921 L2 AND AGAROSE

=> s l16 and N-terminus or C-terminus

   8 FILES SEARCHED...
L17        61450 L16 AND N-TERMINUS OR C-TERMINUS

=> s l17 and l14

L18          107 L17 AND L14

=> d l18 ti abs ibib 1-10


L18  ANSWER 1 OF 107  USPATFULL
TI     Nucleic acids encoding the C140 receptor
AB     Nucleic acid molecules encoding the C140 cell surface receptor have
been
       cloned and sequenced. The availability of C140 receptor DNA permits the
       recombinant production of the C140 receptor which can be produced on
the
       surface of a cell, including an oocyte. The nucleic acid molecules are
       useful in an assay for detecting a substance which affects C140
receptor
       activity, either receptor agonists or antagonists. Further, the
       elucidation of the structure of the C140 receptor permits the design of
       agonist and antagonist compounds which are useful in such assays. The
       availability of the C140 receptor also permits production of antibodies
       specifically immunoreactive with one or more antigenic epitopes of the
       C140 receptor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:         2001:167914  USPATFULL
TITLE:                    Nucleic acids encoding the C140 receptor
INVENTOR(S):              Sundelin, Johan, Furulund, Sweden
                          Scarborough, Robert M., Belmont, CA, United States
PATENT ASSIGNEE(S):       Cor Therapeutics Inc., South Francisco, CA, United
                          States (U.S. corporation)

                               NUMBER         KIND    DATE
                               -------------- ------ --------
PATENT INFORMATION:       US 6297026          B1   20011002
APPLICATION INFO.:        US 1995-486673           19950607  (8)
RELATED APPLN. INFO.:     Division of Ser. No. US 1995-390301, filed on 25 Jan
                          1995, now abandoned Continuation-in-part of Ser. No.
US
                          1993-97938, filed on 26 Jul 1993, now patented, Pat.
                          No. US 5629174
DOCUMENT TYPE:            Utility
FILE SEGMENT:             GRANTED
PRIMARY EXAMINER:         Kunz, Gary L.
ASSISTANT EXAMINER:       Hayes, Robert C
LEGAL REPRESENTATIVE:     Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS:         21
EXEMPLARY CLAIM:          1
NUMBER OF DRAWINGS:       20 Drawing Figure(s); 16 Drawing Page(s)
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LINE COUNT: 1363
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 2 OF 107 USPATFULL
TI 4-amino-phenylalanine type compounds which inhibit leukocyte adhesion mediated by VLA-4
AB Disclosed are compounds which bind VLA-4. Certain of these compounds also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compounds are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, such as asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compounds can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:158276 USPATFULL
TITLE:	4-amino-phenylalanine type compounds which inhibit leukocyte adhesion mediated by VLA-4
INVENTOR(S):	Ashwell, Susan, Plainsboro, NJ, United States Grant, Francine S., San Francisco, CA, United States Konradi, Andrei W., San Francisco, CA, United States Kreft, Anthony, Langhorne, PA, United States Lombardo, Louis John, Belle Mead, NJ, United States Pleiss, Michael A., Sunnyvale, CA, United States Sarantakis, Dimitrios, Newtown, PA, United States Semko, Christopher M., Fremont, CA, United States Thorsett, Eugene D., Moss Beach, CA, United States
PATENT ASSIGNEE(S):	Athena Neurosciences, Inc., South San Francisco, CA, United States (U.S. corporation) American Home Products Corp., Madison, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6291453	B1	20010918	
APPLICATION INFO.:	US 1998-126091		19980730	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1997-112019	19970731	(60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Kifle, Bruck
ASSISTANT EXAMINER:	Patel, Sudhaker B.
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis LLP
NUMBER OF CLAIMS:	32
EXEMPLARY CLAIM:	1
LINE COUNT:	4347

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 3 OF 107 USPATFULL
TI DERIVATIVES OF GLP-1 ANALOGS
AB The present invention relates to a pharmaceutical composition comprising a GLP-1 derivative having a lipophilic substituent; and a surfactant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:123563 USPATFULL
TITLE:	DERIVATIVES OF GLP-1 ANALOGS
INVENTOR(S):	KNUDSEN, LISELOTTE BJERRE, VALBY, Denmark HUUSFELDT, PER OLAF, KOBENHAVN K, Denmark

NIELSEN, PER FRANKLIN, VARLOSE, Denmark
[redacted]ARSHOLM, NIELS C., VANLOSE, Den[redacted]k
OLSEN, HELLE BIRK, ALLEROD, Denmark
BJORN, SOREN ERIK, LYNGBY, Denmark
PEDERSEN, FREDDY ZIMMERDAHL, VARLOSE, Denmark
MADSEN, KJELD, VARLOSE, Denmark

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001011071	A1	20010802
APPLICATION INFO.:	US 1999-398111	A1	19990916 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-265141, filed on 8 Mar 1999, PENDING Continuation-in-part of Ser. No.

US 1999-258750, filed on 26 Feb 1999, PENDING Continuation-in-part of Ser. No. US 1998-38432, filed on 11 Mar 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-918810, filed on 26 Aug 1997, ABANDONED A 371 of International Ser. No. WO 1997-DK340, filed on 22 Aug 1997, UNKNOWN

PRIORITY INFORMATION:	NUMBER	DATE
	DK 1996-931	19960830
	DK 1996-1259	19961108
	DK 1996-1470	19961220
	DK 1998-263	19980227
	DK 1998-264	19980227
	DK 1998-268	19980227
	EP 1998-610006	19980313
	DK 1998-507	19980408
	DK 1998-272	19980227
	DK 1998-274	19980227
	DK 1998-508	19980408
	DK 1998-509	19980408
	US 1997-35904	19970124 (60)
	US 1997-36226	19970125 (60)
	US 1997-36255	19970124 (60)
	US 1998-78422	19980318 (60)
	US 1998-82478	19980421 (60)
	US 1998-82479	19980421 (60)
	US 1998-82480	19980421 (60)
	US 1998-82802	19980423 (60)
	US 1998-84357	19980505 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: STEVE T ZELSON, NOVO NORDISK OF NORTH AMERICA INC, 405 LEXINGTON AVENUE, SUITE 6400, NEW YORK, NY, 101746401
NUMBER OF CLAIMS: 238
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 15340
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 107 USPATFULL
TI Derivatives of GLP-1 analogs
AB The present invention relates to GLP-1 derivatives having a lipophilic substituent, pharmaceutical compositions comprising same, and methods of making an using same. The GLP-1 derivatives of the present invention have a protracted profile of action.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:121450 USPATFULL

TITLE: Derivatives of GLP-1 analogs
INVENTOR(S): [redacted]udsen, Liselotte Bjerre, Valby, [redacted]enmark
Huusfeldt, Per Olaf, K.o slashed.benhavn K, Denmark
Nielsen, Per Franklin, V.ae butted.rl.o slashed.se, Denmark
Kaarsholm, Niels C., Vanl.o slashed.se, Denmark
Olsen, Helle Birk, Aller.o slashed.d, Denmark
Bj.o slashed.rn, S.o slashed.ren Erik, Lyngby, Denmark
Pedersen, Freddy Zimmerdahl, V.ae butted.rl.o slashed.se, Denmark
Madsen, Kjeld, V.ae butted.rl.o slashed.se, Denmark
PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6268343	B1	20010731
APPLICATION INFO.:	US 1999-258750		19990226 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-38432, filed on 11 Mar 1998, now abandoned Continuation-in-part of Ser. No. US 1997-918810, filed on 26 Aug 1997, now abandoned Continuation-in-part of Ser. No. WO 1997-DK340, filed on 22 Aug 1997

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1996-931	19960830
	DK 1996-1259	19961108
	DK 1996-1470	19961220
	DK 1998-263	19980227
	DK 1998-264	19980227
	DK 1998-268	19980227
	DK 1998-272	19980227
	DK 1998-274	19980227
	DK 1998-508	19980408
	DK 1998-509	19980408
	US 1997-35904	19970124 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Borin, Michael
LEGAL REPRESENTATIVE: Zelson, Esq., Steve T., Lambiris, Esq., Elias J.
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 14165
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 5 OF 107 USPATFULL
TI Conformationally constrained backbone cyclized peptide analogs
AB Novel backbone cyclized peptide analogs are formed by means of bridging groups attached via the alpha nitrogens of amino acid derivatives to provide novel non-peptidic linkages. Novel building units disclosed are N.sup..alpha. (.omega.-functionalized) amino acids constructed to include a spacer and a terminal functional group. One or more of these N.sup..alpha. (.omega.-functionalized) amino acids are incorporated into a peptide sequence, preferably during solid phase peptide synthesis. The reactive terminal functional groups are protected by specific protecting groups that can be selectively removed to effect either backbone-to-backbone or backbone-to-side chain cyclizations. The invention is specifically exemplified by backbone cyclized bradykinin antagonists having biological activity. Further embodiments of the

invention are somatostatin analogs having one or two ring structures involving backbone cyclization.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:116981 USPATFULL
TITLE: Conformationally constrained backbone cyclized peptide analogs
INVENTOR(S): Gilon, Chaim, Jerusalem, Israel
Eren, Doron, Rehovot, Israel
Zeltser, Irina, Jerusalem, Israel
Seri-Levy, Alon, Jerusalem, Israel
Gitan, Gal, Jerusalem, Israel
Muller, Dan, Jerusalem, Israel
PATENT ASSIGNEE(S): Yissum Research Development Co. of the Hebrew University, Jerusalem, Israel (non-U.S. corporation)
Peptor Limited, Rehovot, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6265375	B1	20010724
APPLICATION INFO.:	US 1998-120237		19980722 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-488159, filed on 7 Jun 1995, now patented, Pat. No. US 5811392

	NUMBER	DATE
PRIORITY INFORMATION:	IL 1994-109943	19940608

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Low, Christopher S. F.
ASSISTANT EXAMINER: Gupta, Anish
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 3375
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 107 USPATFULL
TI Methods for treatment of multiple sclerosis using peptide analogs of human myelin basic protein
AB The present invention is directed toward peptide analogs of human myelin basic protein. The peptide analog is at least seven amino acids long and derived from residues 83 to 99 of human myelin basic protein. The analogs are altered from the native sequence at least at positions 91, 95, or 97. Additional alterations may be made at other positions. Pharmaceutical compositions containing these peptide analogs are provided. The peptide analogs are useful for treating multiple sclerosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:97421 USPATFULL
TITLE: Methods for treatment of multiple sclerosis using peptide analogs of human myelin basic protein
INVENTOR(S): Gaur, Amitabh, San Diego, CA, United States
Conlon, Paul, Solana Beach, CA, United States
Ling, Nicholas C., San Diego, CA, United States
Staehelin, Theophil, Arlesheim, Switzerland
Crowe, Paul D., Encinitas, CA, United States
PATENT ASSIGNEE(S): Neurocrine Biosciences, Inc., San Diego, CA, United States (U.S. corporation)

Novartis AG, Basel, Switzerland (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6251396	B1	20010626
APPLICATION INFO.:	US 1998-137759		19980820 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-342408, filed on 18 Nov 1994		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Borin, Michael		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group PLLC		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	28 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	1583		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 107 USPATFULL

TI COPOLYMERIC, HYDROPHOBICALLY MODIFIED POLYASPARTIC ESTERS HAVING INCREASED MOLECULAR MASS AND THEIR USE

AB The invention describes the preparation of high molecular weight copolymeric polyaspartic esters which have been hydrophobically modified
with alkyl radicals having from 6 to 30 carbon atoms.

Copolymers derived from polyamino acids, in which at least 75 mol % of the units present consist of structural units of the general formulae (I), (II) or (III) ##STR1##

in which the structural elements A are identical or different trifunctional hydrocarbon radicals having 2 carbon atoms of the type (A1) or (A2), where one copolymer consists of at least three units of the formula (I), where

R.sup.1 is as defined for R.sup.2, R.sup.3 or R.sup.4, where

R.sup.2 are one or more radicals from the group of alkali metals, alkaline earth metals, hydrogen or ammonium, [NR.sup.5R.sup.6R.sup.7R.sup.8].sup.+, where R.sup.5 to R.sup.8 independently of one another are hydrogen, alkyl or alkenyl having from 1 to 22 carbon atoms or hydroxyalkyl having from 1 to 22 carbon atoms and from 1 to 6 hydroxyl groups and/or their **acylation** products containing C.sub.1- to C.sub.22-carboxylic radicals,

R.sup.3 are identical or different, straight-chain or branched, saturated or unsaturated alkyl or alkenyl radicals R.sup.9 having from 6
to 30 carbon atoms, or radicals of the structure --Y--R.sup.9, where Y is an oligo- or polyoxyalkylene chain having from 1 to 100 oxyalkylene units,

R.sup.4 are identical or different, straight-chain or branched, saturated or unsaturated alkyl or alkenyl radicals having from 1 to 5 carbon atoms, the units of the formula (II) are proteinogenic or nonproteinogenic amino acids and are present in an amount of not more than 20% by weight, and

X in the formula (III) is one or more di- or polyfunctional radicals derived from molecular-mass-increasing agents, in particular a di- or polyhydroxy compound, a di- or polyamino compound, or aminoalcohols, having a linear, branched or cyclic, saturated, unsaturated or aromatic hydrocarbon structure, optionally oxo- or aza-substituted with O or N atoms in the chain,

and at least in [redacted]h case one radical R.sup.1 mus[redacted]ssume the meaning of
R.sup.2 and at least one radical R.sup.1 that of R.sup.3 and at least one radical R.sup.1 that of X.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:91625 USPATFULL
TITLE:	COPOLYMERIC, HYDROPHOBICALLY MODIFIED POLYASPARTIC ESTERS HAVING INCREASED MOLECULAR MASS AND THEIR USE
INVENTOR(S):	GRUNING, BURGHARD, ESSEN, Germany, Federal Republic of SIMPELKAMP, JORG, ESSEN, Germany, Federal Republic of WEITEMEYER, CHRISTIAN, ESSEN, Germany, Federal Republic of

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2001003776	A1	20010614	
APPLICATION INFO.:	US 1999-312222	A1	19990514	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19822600	19980520

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	LEOPOLD PRESSER, SCULLY SCOTT MURPHY & PRESSER, 400 GARDEN CITY PLAZA, GARDEN CITY, NY, 11530
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
LINE COUNT:	796

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 8 OF 107 USPATFULL
TI Cell adhesion ihibiting compounds
AB ##STR1## ##STR2##Cyclic peptide of formula (1) where Xaa.sub.1 is selected from L-amino acids selected from Phe, Lys and Arg, D-amino acids selected from Phe and Met, the L- and D-amino acid optionally substituted on its .alpha.-carbon or its .alpha.-amino group with a C.sub.1-4 alkyl group; and Melle; Xaa.sub.2, Xaa.sub.3 et Xaa.sub.4 are respectively Leu, Asp and Val, optionally substituted on their .alpha.-carbon or .alpha.-amino group with a C.sub.1-4 alkyl group; X.sup.1 is selected from D-amino acids selected from Ala, Phe, Arg, Lys, Trp, hArg(Et).sub.2, Orn(CHMe.sub.2), Orn(Me.sub.2), Lys(CHMe.sub.2) and Arg(Pmc), optionally substituted on their .alpha.-carbon or .alpha.-amino group with a C.sub.1-4 alkyl group; Formula (II); NH(CH.sub.2).sub.5 CO; and NH(CH.sub.2).sub.2 S(CH.sub.2).sub.y CO, where y is 1 or 2; X.sup.2 is selected from D-amino acids selected from Ala, Arg, Lys, His, hArg(Et).sub.2, Orm(CHMe.sub.2), and Om(Me.sub.2), optionally substituted on their .alpha.-carbon or .alpha.-amino group with a C.sub.1-4 alkyl group; NH(CH.sub.2)SCH.sub.2 CO; and NH(CH.sub.2).sub.x CO, where x is 2 or 3; Xaa.sub.5 and Xaa.sub.6 are each independently a D-amino acid selected from Ala and Arg, optionally substituted on its .alpha.-carbon or .alpha.-mino group with a C.sub.1-4 alkyl group; p is 0 or 1; and q is 0 or when p is 1, q is 0 or 1; or a salt thereof. The cyclic peptides inhibit the interaction of vascular cell adhesion molecule-1 and fibronectin with integrin very late antigen 4 (.alpha.4.beta.61) and of mucosal addressin cell adhesion molecule-1 (MAdCAM-1) with integrin .alpha.4.beta.7. They have therapeutic applications such as in rheumatoid arthrids, multiple sclerosis, astlna,

psoriasis, inflammatory bowel disease and insulin-dependent diabetes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:75364 USPATFULL		
TITLE:	Cell adhesion ihibiting compounds		
INVENTOR(S):	Dutta, Anand Swaroop, Macclesfield, United Kingdom		
PATENT ASSIGNEE(S):	Zeneca Limited, London, United Kingdom (non-U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6235711	B1	20010522
APPLICATION INFO.:	US 1998-202831		19981221 (9)
	NUMBER		DATE
PRIORITY INFORMATION:	GB 1996-13112		19960621
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Carlson, Karen Cochrane		
ASSISTANT EXAMINER:	Gupta, Anish		
LEGAL REPRESENTATIVE:	Pillsbury Winthrop LLP		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	1825		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 9 OF 107 USPATFULL

TI Double-stranded peptide nucleic acids

AB A novel class of compounds, known as peptide nucleic acids, form double-stranded structures with one another and with ssDNA. The peptide nucleic acids generally comprise ligands such as naturally occurring DNA bases attached to a peptide backbone through a suitable linker.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:67793 USPATFULL		
TITLE:	Double-stranded peptide nucleic acids		
INVENTOR(S):	Norden, Benget, Dorjeskaragatan 15, S-421 60 Vastra Frolunda, Sweden Wittung, Pernilla, Djurgardsgatan 27, S-414 62 Gothenburg, Sweden Buchardt, Ole, Sondergardsvej 73, DK 3500 Vaerlose, Denmark Egholm, Michael, Johnstrup Alle, 3, DK 1923 Fredriksberg, Denmark Nielsen, Peter E., Hjortevanget 509, DK 2980 Kokkedal, Denmark Berg, Rolf, Strandvaenget 6, DK 2960 Rungsted Kyst, Denmark		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228982	B1	20010508
APPLICATION INFO.:	US 1993-88661		19930702 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-54363, filed on 26 Apr 1993, now patented, Pat. No. US 5539082 Continuation-in-part of Ser. No. WO 1992-EP1219, filed on 22 May 1992		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Marschel, Ardin H.		
LEGAL REPRESENTATIVE:	Woodcock Washburn Kurtz Mackiewicz & Norris LLP		

NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM:
NUMBER OF DRAWINGS: 20 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 4722
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 10 OF 107 USPATFULL
TI Methods for treatment of diabetes using peptide analogues of insulin
AB The present invention is directed toward peptide analogues of insulin B chain that are generally derived from peptides comprising residues 9 to 23 of the native B chain sequence. The analogues are altered from the native sequence at position 12, 13, 15 and/or 16, and may be additionally be altered at position 19 and/or other positions. Pharmaceutical compositions containing these peptide analogues arc provided. The peptide analogues are useful for treating and inhibiting the development of diabetes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:33422 USPATFULL
TITLE:	Methods for treatment of diabetes using peptide analogues of insulin
INVENTOR(S):	Gaur, Amitabh, San Diego, CA, United States Ling, Nicholas, San Diego, CA, United States Conlon, Paul J., Solana Beach, CA, United States
PATENT ASSIGNEE(S):	Neurocrine Biosciences, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6197926	B1	20010306
APPLICATION INFO.:	US 1999-255668		19990223 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-28156, filed on 23 Feb 1998, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Moezie, F. T.		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group PLLC		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	30 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	1000		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 15:06:11 ON 02 NOV 2001)
FILE 'MEDLINE, BIOSIS, TOXLIT, EMBASE, DGENE, USPATFULL, WPIDS, JAPIO, JICST-EPLUS, FROSTI, FSTA, CEN, CEABA-VTB, BIOTECHDS, SCISEARCH, AGRICOLA' ENTERED AT 15:07:01 ON 02 NOV 2001

L1	188451	S	FLUORESCEIN ARSENICAL HELIX BINDER OR FLASH
L2	29523	S	L1 AND MODIFIED
L3	0	S	L2 AND TARGET SEQUENCE MOTIF
L4	467	S	L2 AND TARGET SEQUENCE
L5	0	S	POLYPEPTIDE () METHOD () ISOLATION
L6	209	S	POLYPEPTIDE AND METHOD OF ISOLATED
L7	1	S	L6 AND L4
L8	139	S	L4 AND (POLYPEPTIDE)
L9	101	S	L8 AND ISOLATION
L10	46	S	L9 AND ACYLATION
L11	38	S	L10 AND ALANINE
L12	36	S	L11 AND AGAROSE

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L13         15249 S BETA ALANINE
L14           611 S ACYLATION AND L13
L15             1 S L14 AND ALPHA-HELICAL REGION
L16           921 S L2 AND AGAROSE
L17         61450 S L16 AND N-TERMINUS OR C-TERMINUS
L18           107 S L17 AND L14

=> s l2 and immobilized

L19           968 L2 AND IMMOBILIZED

=>  s l19 and l16

L20           363 L19 AND L16

=> s l20 and  l6

L21             1 L20 AND L6

=> d l21 ti abs tot


L21  ANSWER 1 OF 1  USPATFULL
TI     Thermophilic polymerase III holoenzyme
AB     The present invention relates to gene and amino acid sequences encoding
       DNA polymerase III holoenzyme subunits and structural genes from
       thermophilic organisms. In particular, the present invention provides
       DNA polymerase III holoenzyme subunits of T. thermophilus. The present
       invention also provides antibodies and other reagents useful to
identify
       DNA polymerase III molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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Search Results - Record(s) 1 through 10 of 31 returned.

☐ 1. Document ID: US 6303119 B1

L7: Entry 1 of 31 File: USPT Oct 16, 2001

US-PAT-NO: 6303119
DOCUMENT-IDENTIFIER: US 6303119 B1

TITLE: Personal care compositions containing subtilisin enzymes bound to water insoluble substrates

DATE-ISSUED: October 16, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Weisgerber; David John	Cincinnati	OH		
Allcock; Andrew Campbell	Cincinnati	OH		

US-CL-CURRENT: 424/94.63; 424/443, 424/94.1, 424/94.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6294392 B1

L7: Entry 2 of 31 File: USPT Sep 25, 2001

US-PAT-NO: 6294392
DOCUMENT-IDENTIFIER: US 6294392 B1

TITLE: Spatially-encoded analyte detection

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kuhr; Werner G.	Oak Hills	CA		
Singhal; Pankaj	Berkeley	CA		
Brazill; Sara Ann	Diamond Bar	CA		

US-CL-CURRENT: 436/518; 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6235881 B1

L7: Entry 3 of 31 File: USPT May 22, 2001

US-PAT-NO: 6235881
DOCUMENT-IDENTIFIER: US 6235881 B1

TITLE: Polypeptides encoded by novel HIV-2 proviruses

DATE-ISSUED: May 22, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kraus; Gunter	Miami	FL		
Wong-Staal; Flossie	San Diego	CA		
Talbott; Randy L.	Princeton	NJ		
Poeschla; Eric M.	San Diego	CA		

US-CL-CURRENT: 530/350; 530/387.3, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 6166178 A

L7: Entry 4 of 31 File: USPT Dec 26, 2000

US-PAT-NO: 6166178
DOCUMENT-IDENTIFIER: US 6166178 A

TITLE: Telomerase catalytic subunit

DATE-ISSUED: December 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cech; Thomas R.	Boulder	CO		
Lingner; Joachim	Boulder	CO		

US-CL-CURRENT: 530/324; 530/827, 530/828, 536/23.2, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6153430 A

L7: Entry 5 of 31 File: USPT Nov 28, 2000

US-PAT-NO: 6153430
DOCUMENT-IDENTIFIER: US 6153430 A

TITLE: Nucleic acid encoding mesothelin, a differentiation antigen present on mesothelium, mesotheliomas and ovarian cancers

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pastan; Ira	Potomac	MD		
Chang; Kai	Silver Spring	MD		

US-CL-CURRENT: 435/325; 435/69.1, 435/69.3, 530/350, 536/23.1, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 6107462 A

L7: Entry 6 of 31 File: USPT Aug 22, 2000

US-PAT-NO: 6107462
DOCUMENT-IDENTIFIER: US 6107462 A

TITLE: Genes and proteins controlling cholesterol synthesis

DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rine; Jasper D.	Moraga	CA		
Hampton; Randolph	San Diego	CA		

US-CL-CURRENT: 530/350; 435/69.1, 536/23.5, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 6087103 A

L7: Entry 7 of 31 File: USPT Jul 11, 2000

US-PAT-NO: 6087103
DOCUMENT-IDENTIFIER: US 6087103 A

TITLE: Tagged ligand arrays for identifying target-ligand interactions

DATE-ISSUED: July 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Burmer; Glenna C.	Seattle	WA		

US-CL-CURRENT: 435/6; 435/7.1, 530/350, 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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☐ 8. Document ID: US 6083502 A

L7: Entry 8 of 31 File: USPT Jul 4, 2000

US-PAT-NO: 6083502
DOCUMENT-IDENTIFIER: US 6083502 A

TITLE: Mesothelium antigen and methods and kits for targeting it

DATE-ISSUED: July 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pastan; Ira	Potomac	MD		
Chang; Kai	Silver Spring	MD		

US-CL-CURRENT: 424/178.1; 424/133.1, 424/135.1, 424/136.1, 424/138.1, 424/139.1, 424/181.1, 424/183.1, 435/330, 435/331 , 530/387.3, 530/387.9, 530/388.5, 530/388.8, 530/391.3, 530/391.7

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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☐ 9. Document ID: US 6025477 A

L7: Entry 9 of 31 File: USPT Feb 15, 2000

US-PAT-NO: 6025477
DOCUMENT-IDENTIFIER: US 6025477 A

TITLE: Atherosclerotic plaque specific antigens, antibodies thereto, and uses thereof

DATE-ISSUED: February 15, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Calenoff; Emanuel	Chicago	IL	60611	

US-CL-CURRENT: 530/388.2; 435/332, 530/387.3, 530/391.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 10. Document ID: US 5998149 A

L7: Entry 10 of 31 File: USPT Dec 7, 1999

US-PAT-NO: 5998149
DOCUMENT-IDENTIFIER: US 5998149 A

TITLE: Method of detecting transmissible spongiform encephalopathies

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hsich; Gary	Philadelphia	PA		
Kenney; Kimbra	Arlington	VA		
Gibbs; Clarence J.	Washington	DC		
Harrington; Michael G.	La Canada	CA		

US-CL-CURRENT: 435/7.1; 435/7.92, 435/7.93, 436/149, 436/811

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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Terms	Documents
l6 and beads	31

Display 10 Documents, starting with Document: 11

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L7: Entry 1 of 31 File: USPT Oct 16, 2001

DOCUMENT-IDENTIFIER: US 6303119 B1
TITLE: Personal care compositions containing subtilisin enzymes bound to water insoluble substrates

BSPR:
In the medical field, suggestions have been made to diminish the immunogenicity of proteins through yet another method. This method involves attaching unreactive polymers to the protein. U.S. Pat. No. 4,179,337 (Davis, et al.) relates to enzymes coupled to substantially straight chain polyethylene glycol (PEG) or polypropylene glycol (PPG) polymer moieties. While PEG/PPG coupling was found to mitigate the allergenicity of the enzyme, only 15% of the physiological activity was maintained. PCT Application WO 96/17929 (Olsen, et al., published Jun. 13, 1996) relates to the modification of enzymes by conjugating them with suitable polymers. The Olsen application describes modified enzymes which demonstrate a reduction in allergenicity of from 25% to 66% compared to the parent enzyme, while maintaining from 39% to 100% of the activity of the parent.

BSPR:
Another approach to reduce the allergenicity of active proteins has been by granulating, coating or dissolving the active proteins to avoid their becoming airborne. U.S. Pat. No. 4,556,554 (Calvo) discloses cosmetic compositions which comprise enzymes which have been immobilized by attachment to particles of polymeric support. The particles with attached enzymes are dispersed in the cosmetic vehicle. Upon application of the vehicle to the skin, the enzyme is released from the support and is therefore reactivated. Methods such as this address consumer exposure to airborne proteins, however they still leave the substantial risks associated with extended tissue contact with the released enzyme which are deposited on the skin.

BSPR:
Canadian Patent 1,229,808, issued Dec. 1, 1987 teach the immobilization of enzymes, specifically .beta.-galactosidase and .beta.-glucosidase, on cellulosic substrates wherein the enzyme is immobilized by absorption into a agarose gel coating the substrate.

BSPR:
UK Patent Application GB 2,240,040, published Jul. 24, 1991 also teaches immobilized enzymes on substrates. Enzymes, therein as covalently bonded to substrates to provide a

medicated dressing.

BSPR:
The activity of enzymes used in biological equipment such as biosensors, bioseparators, and bioreactors has been enhanced by the use of site-specific attachment of enzymes to equipment surfaces. See Huang et al., "Improving the Activity of Immobilized Subtilisin by Site-specific Attachment to Surface", Analytical Chemistry, 69(22), Nov. 15, 1997. Huang teaches the immobilization of subtilisin enzymes via mutation of serine249 or serine145 to cysteine, and bonding to silica beads functionalized with amino groups.

BSPR:
Nonlimiting examples of synthetic materials useful in the present invention include those selected from the group consisting of acetate fibers, acrylic fibers, cellulose ester fibers, modacrylic fibers, polyamide fibers, polyester fibers, polyolefin fibers, polyvinyl alcohol fibers, rayon fibers, polyurethane foam, and mixtures thereof. Examples of some of these synthetic materials include acrylics such as acrilan, creslan, and the acrylonitrile-based fiber, orlon; cellulose ester fibers such as cellulose acetate, arnel, and acele; polyamides such as nylons (e.g., nylon 6, nylon 66, nylon 610, and the like); polyesters such as fortrel, kodel, and the polyethylene terephthalate fiber, dacron; polyolefins such as polypropylene, polyethylene; polyvinyl acetate fibers; polyurethane foams and mixtures thereof. These and other suitable fibers and the nonwoven materials prepared therefrom are generally described in Riedel, "Nonwoven Bonding Methods and Materials," Nonwoven World (1987); The Encyclopedia Americana, vol. 11, pp. 147-153, and vol. 26, pp. 566-581 (1984); U.S. Pat. No. 4,891,227, to Thaman et al., issued Jan. 2, 1990; and U.S. Pat. No. 4,891,228 which are all incorporated by reference herein in their entirety.

BSPR:
Nonwoven substrates made from synthetic materials useful in the present invention can also be obtained from a wide variety of commercial sources. Nonlimiting examples of suitable nonwoven layer materials useful herein include HEF 40-047, an apertured hydroentangled material containing about 50% rayon and 50% polyester, and having a basis weight of about 43 grams per square yard (gsy), available from Veratec, Inc., Walpole, Mass.; HEF 140-102, an apertured hydroentangled material containing about 50% rayon and 50% polyester, and having a basis weight of about 56 gsy, available from Veratec, Inc., Walpole, Mass.; Novonet.RTM. 149-616, a thermo-bonded grid patterned material containing about 100% polypropylene, and having a basis weight of about 50 gsy, available from Veratec, Inc., Walpole, Mass.; Novonet.RTM. 149-801, a thermo-bonded grid patterned material containing about 69% rayon, about 25% polypropylene, and about 6% cotton, and having a basis weight of about 75 gsy, available from Veratec, Inc. Walpole, Mass.; Novonet.RTM. 149-191, a thermo-bonded grid patterned material containing about 69% rayon, about 25% polypropylene, and about 6% cotton, and having a basis weight of about 100 gsy,

available from Veratec, Inc. Walpole, Mass.; HEF Nubtex.RTM. 149-801, a nubbed, apertured hydroentangled material, containing about 100% polyester, and having a basis weight of about 70 gsy, available from Veratec, Inc. Walpole, Mass.; Keybak.RTM. 951V, a dry formed apertured material, containing about 75% rayon, about 25% acrylic fibers, and having a basis weight of about 43 gsy, available from Chicopee, New Brunswick, N.J.; Keybak.RTM. 1368, an apertured material, containing about 75% rayon, about 25% polyester, and having a basis weight of about 39 gsy, available from Chicopee, New Brunswick, N.J.; Duralace.RTM. 1236, an apertured, hydroentangled material, containing about 100% rayon, and having a basis weight from about 40 gsy to about 115 gsy, available from Chicopee, New Brunswick, N.J.; Duralace.RTM. 5904, an apertured, hydroentangled material, containing about 100% polyester, and having a basis weight from about 40 gsy to about 115 gsy, available from Chicopee, New Brunswick, N.J.; Sontaro 8868, a hydroentangled material, containing about 50% cellulose and about 50% polyester, and having a basis weight of about 60 gsy, available from Dupont Chemical Corp.

BSPR:
The wipe compositions of the present invention can comprise a wide range of optional ingredients. The CTFA International Cosmetic Ingredient Dictionary, Sixth Edition, 1995, which is incorporated by reference herein in its entirety, describes a wide variety of nonlimiting cosmetic and pharmaceutical ingredients commonly used in the skin care industry, which are suitable for use in the compositions of the present invention. Nonlimiting examples of functional classes of ingredients are described at page 537 of this reference. Examples of these functional classes include: abrasives, anti-acne agents, anticaking agents, anti-microbial agents, antioxidants, binders, biological additives, bulking agents, chelating agents, chemical additives, colorants, cosmetic astringents, cosmetic biocides, denaturants, drug astringents, emulsifiers, external analgesics, film formers, fragrance components, humectants, mildness enhancers (cationic and nonionic polymers, co-surfactants, lipid moisturizers, hydrocarbon oils, silicone oils, waxes), opacifying agents, plasticizers, preservatives, propellants, reducing agents, skin bleaching agents, skin-conditioning agents (emollient, humectants, miscellaneous, and occlusive), skin protectants, solvents, foam boosters, hydrotropes, solubilizing agents, stabilizers, suspending agents, sunscreen agents, surfactants (anionic, cationic, amphoteric, zwitterionic), ultraviolet light absorbers, and viscosity increasing agents (aqueous and nonaqueous). Examples of other functional classes of materials useful herein that are well known to one of ordinary skill in the art include solubilizing agents, sequestrants, and keratolytics, and the like.

DEPR:
A hydroapertured, nonwoven substrate having a basis weight of about 60 gsy comprising 50% rayon and 50% polyester approximately 6 in. by 7.6 in. and a thickness of about 20 mil having a bound active protein per Examples 1-7.

DEPR:
A hydroapertured, nonwoven substrate having a basis weight of about 60 gsy comprising 50% rayon and 50% polyester approximately 6 in. by 7.6 in. and a thickness of about 20 mil having a bound active protein per Examples 1-7.

DEPR:
A hydroapertured, nonwoven substrate having a basis weight of about 60 gsy comprising 50% rayon and 50% polyester approximately 6 in. by 7.6 in. and a thickness of about 20 mil having a bound active protein per Examples 1-7.

DEPR:
A hydroapertured, nonwoven substrate having a basis weight of about 60 gsy comprising 50% rayon and 50% polyester approximately 6 in. by 7.6 in. and a thickness of about 20 mil having a bound active protein according to Examples 1-7.

CLPR:
2. A personal care wipe composition according to claim 1 wherein said water insoluble substrate comprises one or more materials selected from the group consisting of silks, keratins, celluloses, acetates, acrylics, cellulose esters, modacrylics, polyamides, polyesters, polyolefins, polyvinyl alcohols, wood pulp, cotton, hemp, jute, flax, acrylics, nylons, polyesters, polyproylenes, polyethylenes, polyvinyl acetates, polyurethanes, rayon, and mixtures thereof.

CLPR:
3. A personal care wipe composition according to claim 2 wherein said water insoluble substrate comprises a nonwoven sheet of fibers selected from the group consisting of rayon fibers, cellulose fibers, polyester fibers, and mixtures thereof.

ORPL:
Cho, M.Y., Einolf, D.M., "Application of Immobilized Cells and Enzymes for Pharmaceutical Production", Pharmaceutical Manufacturing, 1985 (Oct.), 39-42.

ORPL:
Huang, W. et al., "Improving the Activity of Immobilized Subtilisin by Site-specific Attachment to Surfaces", Analytical Chemistry, 1997 (Nov.), vol. 69 (No. 22), 4601-4607.

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Search Results - Record(s) 11 through 20 of 31 returned.

☐ 11. Document ID: US 5977322 A

L7: Entry 11 of 31 File: USPT Nov 2, 1999

US-PAT-NO: 5977322
DOCUMENT-IDENTIFIER: US 5977322 A

TITLE: High affinity human antibodies to tumor antigens

DATE-ISSUED: November 2, 1999

INVENTOR INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Marks; James D.	Kensington	CA		
Schier; Robert	San Francisco	CA		

US-CL-CURRENT: 530/388.85; 530/387.3, 530/387.7, 530/388.15, 530/388.22, 530/388.8

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 12. Document ID: US 5972625 A

L7: Entry 12 of 31 File: USPT Oct 26, 1999

US-PAT-NO: 5972625
DOCUMENT-IDENTIFIER: US 5972625 A

TITLE: Assays for inhibitors of leukocyte adhesion

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rosen; Steven D.	San Francisco	CA		
Singer; Mark	Berkeley	CA		
Imai; Yasuyuki	Tokyo			JPX

US-CL-CURRENT: 435/7.2; 435/7.1, 435/7.24, 435/7.71, 435/7.72, 435/7.8, 435/7.9, 435/7.91, 435/7.92, 435/7.93, 435/7.94 , 435/7.95

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 13. Document ID: US 5935788 A

L7: Entry 13 of 31 File: USPT Aug 10, 1999

US-PAT-NO: 5935788
DOCUMENT-IDENTIFIER: US 5935788 A

TITLE: Subtractive hybridization techniques for identifying differentially expressed and commonly expressed nucleic acid

DATE-ISSUED: August 10, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Burmer; Glenna C.	Seattle	WA		
Brown; Joseph P.	Seattle	WA		
Stewart; Christine C.	Seattle	WA		

US-CL-CURRENT: 435/6; 435/91.2, 536/23.1, 536/24.2, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 14. Document ID: US 5883081 A

L7: Entry 14 of 31 File: USPT Mar 16, 1999

US-PAT-NO: 5883081
DOCUMENT-IDENTIFIER: US 5883081 A

TITLE: Isolation of novel HIV-2 proviruses

DATE-ISSUED: March 16, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kraus; Gunter	La Jolla	CA		
Wong-Staal; Flossie	San Diego	CA		
Talbott; Randy	Princeton	NJ		
Poeschla; Eric M.	San Diego	CA		

US-CL-CURRENT: 514/44; 424/160.1, 435/320.1, 435/69.1, 530/388.35, 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 15. Document ID: US 5753631 A

L7: Entry 15 of 31 File: USPT May 19, 1998

US-PAT-NO: 5753631
DOCUMENT-IDENTIFIER: US 5753631 A

TITLE: Intercellular adhesion mediators

DATE-ISSUED: May 19, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Paulson; James C.	Sherman Oaks	CA		
Perez; Mary S.	Carlsbad	CA		
Gaeta; Federico C. A.	La Jolla	CA		
Ratcliffe; Robert M.	Carlsbad	CA		

US-CL-CURRENT: 514/25; 514/54, 514/61, 514/62, 514/8, 536/17.2, 536/18.2, 536/18.7, 536/53, 536/54, 536/55, 536/55.1, 536/55.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 16. Document ID: US 5750332 A

L7: Entry 16 of 31 File: USPT May 12, 1998

US-PAT-NO: 5750332
DOCUMENT-IDENTIFIER: US 5750332 A

TITLE: Peptomers with enhanced immunogenicity

DATE-ISSUED: May 12, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Robey; Frank A.	Bethesda	MD		
Harris-Kelson; Tracy A.	Mitchellville	MD		
Robert-Guroff; Marjorie	Rockville	MD		

US-CL-CURRENT: 435/5; 435/974, 514/13, 514/2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 17. Document ID: US 5726022 A

L7: Entry 17 of 31 File: USPT Mar 10, 1998

US-PAT-NO: 5726022
DOCUMENT-IDENTIFIER: US 5726022 A

TITLE: Subtractive hybridization and capture methods and kits for differential isolation of nucleic acids including disease-associated sequences

DATE-ISSUED: March 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Burmer; Glenna C.	Seattle	WA		

US-CL-CURRENT: 435/6; 435/91.2, 536/24.2, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWMC | Draw Desc | Image

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☐ 18. Document ID: US 5712103 A

L7: Entry 18 of 31 File: USPT Jan 27, 1998

US-PAT-NO: 5712103
DOCUMENT-IDENTIFIER: US 5712103 A

TITLE: Diagnostic assay for the prediction of preeclampsia

DATE-ISSUED: January 27, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Leavitt; John	Palo Alto	CA		
Taylor; Robert N.	San Francisco	CA		
Varma; Madhu	Mountain View	CA		
Shorter; Simon	Los Gatos	CA		

US-CL-CURRENT: 435/7.92; 435/69.6, 435/7.8, 514/3, 514/8

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWMC | Draw Desc | Image

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☐ 19. Document ID: US 5631133 A

L7: Entry 19 of 31 File: USPT May 20, 1997

US-PAT-NO: 5631133
DOCUMENT-IDENTIFIER: US 5631133 A

TITLE: Transition in transcriptional activation by intracellular hormone receptors at the tumor stage of dermal fibrosarcoma development

DATE-ISSUED: May 20, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hanahan; Douglas	San Francisco	CA		
Yamamoto; Keith R.	San Francisco	CA		
Vivanco; Maria d. M.	San Francisco	CA		

US-CL-CURRENT: 435/6; 435/69.4

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 20. Document ID: US 5604207 A

L7: Entry 20 of 31 File: USPT Feb 18, 1997

US-PAT-NO: 5604207
DOCUMENT-IDENTIFIER: US 5604207 A

TITLE: Sialyl Le.sup.x analogues as inhibitors of cellular adhesion

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeFrees; Shawn A.	San Marcos	CA		
Gaeta; Federico C. A.	Olivenhain	CA		
Gaudino; John J.	Westlake Village	CA		
Zheng; Zhongli	Lexington	MA		
Hayashi; Masaji	Kobe			JPX

US-CL-CURRENT: 514/25; 514/54, 514/61, 514/62, 536/17.2, 536/55, 536/55.1, 536/55.2, 536/63, 536/64, 536/65

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☐ 21. Document ID: US 5559103 A

L7: Entry 21 of 31 File: USPT Sep 24, 1996

US-PAT-NO: 5559103
DOCUMENT-IDENTIFIER: US 5559103 A

TITLE: Bivalent sialyl X saccharides

DATE-ISSUED: September 24, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaeta; Federico C. A.	Foster City	CA		
DeFrees; Shawn A.	San Marcos	CA		

US-CL-CURRENT: 514/54; 514/62, 514/886, 514/887, 530/395, 530/396, 536/53, 536/54, 536/55, 536/55.1, 536/55.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 22. Document ID: US 5518882 A

L7: Entry 22 of 31 File: USPT May 21, 1996

US-PAT-NO: 5518882
DOCUMENT-IDENTIFIER: US 5518882 A

TITLE: Immunological methods of component selection and recovery

DATE-ISSUED: May 21, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lund; Garry	Edmonton			CAX
Wegmann, deceased; Thomas	late of Edmonton			CAX
Mosmann; Timothy	Edmonton			CAX

US-CL-CURRENT: 435/6; 435/7.21, 435/7.5, 435/7.8, 435/7.93, 436/501, 436/518, 436/541, 436/543

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 23. Document ID: US 5516638 A

L7: Entry 23 of 31 File: USPT May 14, 1996

US-PAT-NO: 5516638
DOCUMENT-IDENTIFIER: US 5516638 A

TITLE: Immunoassays for the detection of antibodies to Chlamydia trachomatisi in the urine.

DATE-ISSUED: May 14, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Urnovitz; Howard B.	San Francisco	CA		
Gottfried; Toby D.	Orinda	CA		
Robison; David J.	Walnut Creek	CA		

US-CL-CURRENT: 435/7.32; 435/7.36, 435/7.92, 435/7.93, 435/7.94, 435/7.95, 436/518, 436/530, 436/531, 436/534

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 24. Document ID: US 5424188 A

L7: Entry 24 of 31 File: USPT Jun 13, 1995

US-PAT-NO: 5424188
DOCUMENT-IDENTIFIER: US 5424188 A

TITLE: Amplified hybridization assay

DATE-ISSUED: June 13, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schneider; Robert J.	New York	NY		
Shenk; Thomas E.	Princeton	NJ		

US-CL-CURRENT: 435/6; 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

☐ 25. Document ID: US 5318890 A

L7: Entry 25 of 31 File: USPT Jun 7, 1994

US-PAT-NO: 5318890
DOCUMENT-IDENTIFIER: US 5318890 A

TITLE: Assays for inhibitors of leukocyte adhesion

DATE-ISSUED: June 7, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rosen; Steven	San Francisco	CA		
Singer; Mark	Berkeley	CA		
Imai; Yasuyuki	San Francisco	CA		
Yednock; Ted	Fairfax	CA		

US-CL-CURRENT: 435/7.24; 435/7.1, 435/7.2, 435/7.92, 530/387.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

☐ 26. Document ID: US 5118611 A

L7: Entry 26 of 31 File: USPT Jun 2, 1992

US-PAT-NO: 5118611
DOCUMENT-IDENTIFIER: US 5118611 A

TITLE: Adenocarcinoma antigen binding methods and reagents

DATE-ISSUED: June 2, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Lloyd H.	Davis	CA		
Teng; Nelson N. H.	Hillsborough	CA		

US-CL-CURRENT: 435/7.23; 435/344.1, 435/965, 436/548, 436/64, 436/813, 530/387.2, 530/388.15, 530/388.85, 530/808, 530/809, 530/865

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

☐ 27. Document ID: US 5084379 A

L7: Entry 27 of 31 File: USPT Jan 28, 1992

US-PAT-NO: 5084379
DOCUMENT-IDENTIFIER: US 5084379 A

TITLE: Fluorometric assay of chymopapain hypersensitivity and reagents therefor

DATE-ISSUED: January 28, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Calenoff; Emanuel	Burlingame	CA		
Jones; Ruth M.	Redwood City	CA		
Tsay; Yuh-Geng	San Jose	CA		
Beigler; Myron A.	Los Altos Hills	CA		

US-CL-CURRENT: 435/7.1; 435/23, 435/24, 435/7.4, 436/513

☐ 28. Document ID: US 5059654 A

L7: Entry 28 of 31 File: USPT Oct 22, 1991

US-PAT-NO: 5059654
DOCUMENT-IDENTIFIER: US 5059654 A

TITLE: Affinity matrices of modified polysaccharide supports

DATE-ISSUED: October 22, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hou; Kenneth C.	Glastonbury	CT		
Liao; Tung-Ping D.	Missouri City	TX		
Rohan; Robert	Columbia	CT		

US-CL-CURRENT: 525/54.1; 210/198.2, 210/502.1, 210/656, 422/59, 422/70, 422/89, 435/180, 525/54.2, 525/54.21, 530/391.1 , 530/391.5, 530/412, 530/413, 536/23.1

☐ 29. Document ID: US 4882269 A

L7: Entry 29 of 31 File: USPT Nov 21, 1989

US-PAT-NO: 4882269
DOCUMENT-IDENTIFIER: US 4882269 A

TITLE: Amplified hybridization assay

DATE-ISSUED: November 21, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schneider; Robert J.	New York	NY		
Shenk; Thomas E.	Princeton	NJ		

US-CL-CURRENT: 435/6; 435/18, 435/21, 435/803, 435/810, 436/800, 436/805, 436/808, 536/24.3, 536/24.31, 536/24.32

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☐ 30. Document ID: US 4791063 A

L7: Entry 30 of 31 File: USPT Dec 13, 1988

US-PAT-NO: 4791063
DOCUMENT-IDENTIFIER: US 4791063 A

TITLE: Polyionene transformed modified polysaccharide supports

DATE-ISSUED: December 13, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hou; Kenneth C.	S. Glastonbury	CT		
Hou; Chung-Jen	South Windsor	CT		
Chen; Haunn-Lin	Vernon	CT		

US-CL-CURRENT: 435/243; 435/252.1, 435/308.1, 435/803, 524/27, 524/58, 525/54.3, 526/238.2

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